DIVERSIFICATION STRATEGY IN BUSINESS GROUP AFFILIATED FIRMS: EVIDENCE FROM CHINA

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ABSTRACT

This dissertation examines unrelated diversification strategies in business group-affiliated firms. In essay 1, using an enriched power-seeking framework, I provide a fresh angle to explain the motives and performance of unrelated diversification strategy in business group-affiliated firms. I argue that managers in business group-affiliated firms are likely to engage in unrelated diversification as a strategic choice, or a "protective investment", to protect the resources generated by the affiliated firms from being shared by other affiliated firms in the same group or to compete for a larger share of group-level resources. Unrelated diversification strategy can serve such purposes because it increases an affiliated firm's ability to influence the group headquarter, changes the compositions of the firm's assets to harder-to-expropriate physical and intangible assets and signals for the firm's need of more resources. Further, this study also suggests that the impact of acquired resources on the diversification-performance relationship hinges on the market availability of the resources.

In essay 2 of this dissertation, drawing upon identity theory and social identity theory, I investigate the contingent role of group-dispatched executive directors in the unrelated diversification decision in group-affiliated firms. I argue that, group-dispatched executive directors have both group-affiliation identity and executive identity. Both identities are relevant and potentially conflicting in assessing a protective investment, such as unrelated diversification. I identify directors' organizational tenure, group-affiliated firms' performance and their dependence on the groups as relevant contextual or reflexive factors to determine which identity is more salient in the decision process.

I test my theoretical framework and hypotheses using publicly listed group-affiliated firms in China and find general support for my predictions.

Key words: Business group, unrelated diversification, slack resources, power-seeking perspective, board of directors, identity theory, social identity theory.

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CHAPTER 1 INTRODUCTION

1.1 Background: Unrelated Diversification in Firms Affiliated with Business Groups

In this dissertation, I address the following research questions: (1) Why do firms affiliated with diversified business groups conduct unrelated diversification themselves? (2) What is the outcome of such strategy? (3) What is the role of group-affiliated executive directors in such strategy?

Extensive research investigates the relationship between diversification and economic performance (e.g. Rumelt, 1982; Bettis, 1981; Christensen and Montgomery, 1981; Teece, 1982; Wernerfelt and Montgomery, 1988; Ramanujam and Varadarajan, 1989; Hoskisson and Hitt, 1990; Markides and Williamson, 1996; Wan & Hoskisson, 2003; Gary, 2005; Miller, 2006). To managers, diversification is important because the success or failure of a new venture can greatly influence a firm's future growth and profitability (Rumelt, 1982). To researchers, the observed large numbers of diversification activities in the United States, Europe, and Asia also beget attention in the underlying motives and performance outcome of diversification (Hoskisson and Hitt, 1990; Datta, Rajagopalan and Rasheed, 1991). In spite of the extensive work on diversification of independent firms, there is relatively little empirical research examining diversification in another distinct organizational form, i.e. the business group-affiliated firms. Figure 1 illustrates the diversification strategy in an independent firm and a business group-affiliated firm.

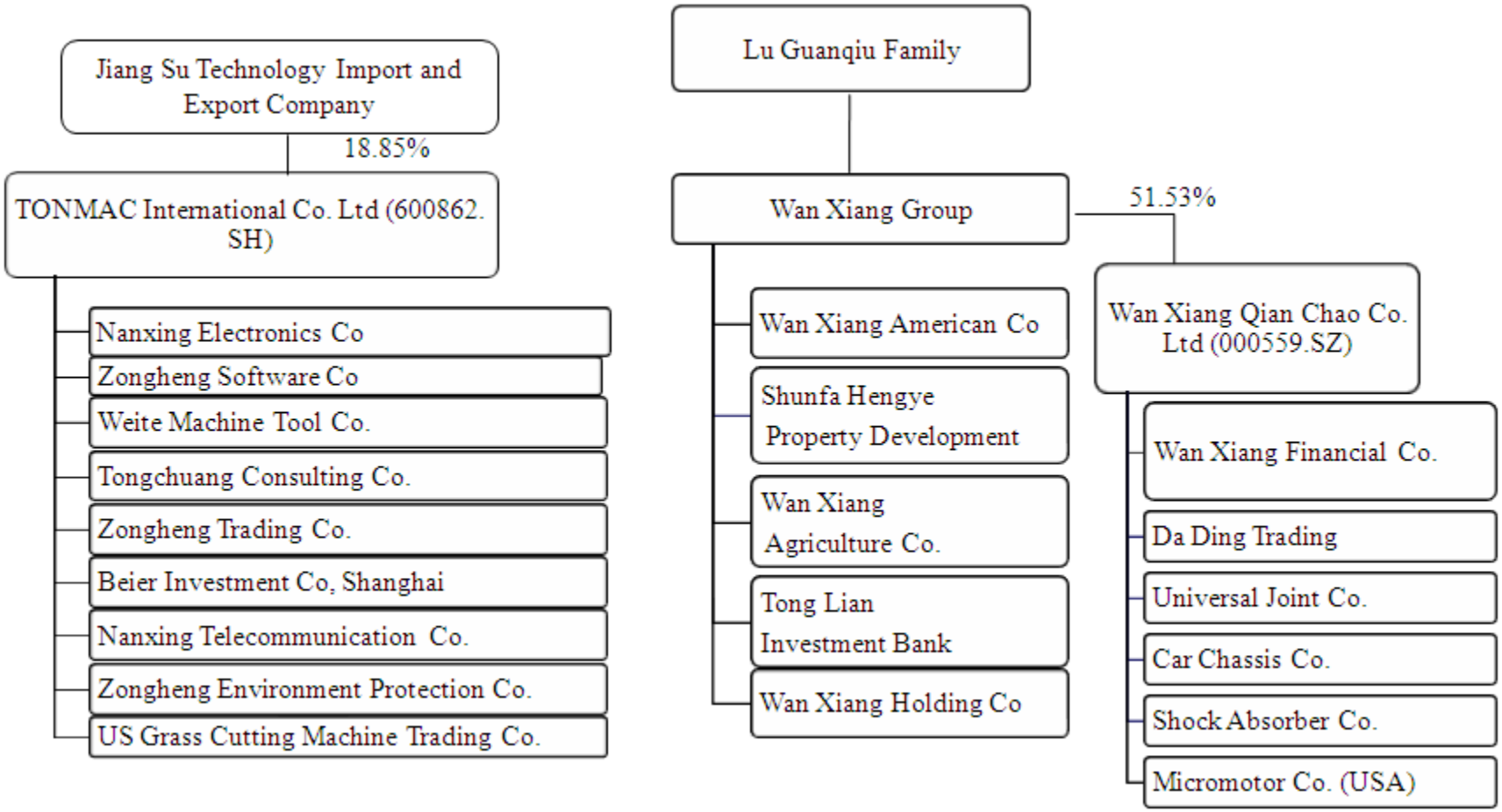
The leading theoretical argument to explain unrelated diversification is internal market efficiency perspective. It suggests that, in emerging economies where the development of institution infrastructure is lacking, unrelated diversification helps firms manage "institution voids". Business groups, defined as "a set of legally independent

companies, with activities in multiple industries, that are linked as affiliates through persistent informal links and formal relationships such as equity, director, and operating ties" (Khanna and Rivkin, 2001), act as internal markets for their affiliated firms. This implies that diversification at the group level substitutes for and precludes diversification at the affiliate level (Charabarti, Singh, & Mahmood, 2007). Thus, there might be less need and fewer benefits for group-affiliated firms diversifying themselves. This literature expects that diversification occurring at the group level is more effective than that occurring at an individual affiliated firm level (Chang and Hong, 2000; Khanna and Palepu, 1997; Kock and Guillen, 2001).

In the business world, however, companies affiliated with business group in China, India, Korea, and other emerging economies, are evidently heavily diversified, producing many products, extensively integrated, and apparently are always eager to take on more products (Charabarti, Singh, & Mahmood, 2007). In China, for an example, Wan Xiang Group (see Figure 1) owned by Lu Guanqiu family mainly manufactures automobile accessories, but it also operates in property development, agriculture, and finance sectors. Its main affiliate, Wan Xiang Qian Chao Company, is listed in Shenzhen Stock Exchange and diversifies itself into trading and finance sector beside its automobile accessory manufacturing business. In other parts of the world, well-diversified group-affiliated firms such as Samsung Electronics in Korea, the Samsung group's major affiliated firm, are also observed.

Therefore, motivated by the seemingly conflicting theoretical prediction and practical evidence, this dissertation focuses on the motive, performance and control system regarding unrelated diversification in group-affiliated firms.

Figure 1.1 Unrelated Diversification in Independent Firms (Left) V.S. in Group-affiliated Firms (Right)



1.2 Essay 1: Diversification and Internal Resource Transfer in Business Groups

Despite the anecdotal and empirical evidence, which suggests that group-affiliated firms do diversify (Chang and Hong, 2002), the questions of *why firms affiliated with diversified business group diversify themselves and what is the outcome of such strategy* remain unanswered. In essay 1, addressing these research questions, I enrich the power-seeking framework in internal market literature (Scharfstein & Stein, 2000; Rajan, Servaes, & Zingales, 2000) and employ it to provide a fresh angle to explain the motives and performance of unrelated diversification strategy in group-affiliated firms. In this enriched power-seeking framework, I assume that there exist: (1) information asymmetry between group headquarters and their affiliated firms; and (2) interest divergence between the two parties. Based on the two assumptions, I argue that managers in group-affiliated firms prefer to engage in unrelated diversification, as a strategic choice, or "protective investment". On one hand, it is a "defensive move" to protect the resources generated by the affiliated firms from being shared by other affiliated firms in the group. On the other hand, such strategy also serves as a "preemptive move", helping the affiliated firms compete for a larger share of group-level resources. This is because unrelated diversificaiton, first, increases the affiliated firms' ability to influence the group headquarters to either supply more resources or limit transfer away of resources (Ranjan et al., 2000). Second, it changes the compositions of firms' assets away from cash to harder-to-expropriate physical and intangible assets (Beneish et al. 2008). Moreover, diversification strategy signals the need of more resources in the group-affiliated firms. As a restult, the first study suggests that managers in group-affiliated firms can play a significant role in influencing the resource allocation decision in a business group.

This study also suggests that the impact of acquired resources on the diversification-performance relationship is heterogenous and hinges on the market availability of the resources. Acquiring market unavailable resources from business groups help affiliated firms gain higher returns because such resources alleviate their constraints in diversification strategies (Kumar, 2009). In contrast, excess market available resources injected from business groups may exacerbate the agency problem by promoting undisciplined investments, encouraging the pursuit of pet projects (Nohria and Gulati, 1996), or rendering the management of the affiliated companies less diligent in their pursuit of efficiencies (Hundley and Jacobson, 1998). I test the hypotheses on a longitudinal sample of approximately 790 group-affiliated firms over a 5-year period from 2001 to 2005 and find general support to my predictions.

1.3 Essay 2: Control Role or Resource Role? The Contingent Role of Group-Dispatched Executive Directors

The theoretical framework and empirical evidence in the essay 1 highlight the information asymmetry and interest divergence problems between group headquarters and affiliated firms surrounding unrelated diversification strategy. The findings of the essay 1 naturally lead to the next research question of interest: how do group headquarters control such information asymmetry and interest divergence problems? Dispatching directors to sit on the affiliated firms' boards is a central governance mechanism adopted by many business groups. In essay 2, I examine the contingent role of group-dispatched executive directors in group-affiliated firms' unrelated diversification strategy.

I assert that, like other directors, group-dispatched directors can be executive directors or non-executive directors. While the control role of group-dispatched non-executive directors is relatively obvious, the role of group-dispatched executive directors is

less clear and invites further research. This is because, as executive directors, they are also tied with the affiliated firms in various aspects and their interests may gradually align better with the affiliated firms', rather than with the groups'. Therefore, they could use their contacts and influence in the groups to obtain more resources to help the pursuing investments that benefit them more directly, or playing the "resource role".

To theoretically ground my investigation of the "control role" or "resource role" of group-dispatched executive directors, I draw upon identity theory (Mead, 1934; Stryker, 1968; Burke and Reitzes, 1981; Callero, 1985; Stryker and Burke, 2000) and social identity theory (Tajfel, 1978, 1981; Tajfel and Turner, 1985; Turner, 1975, 1982, 1984, 1985) in the social psychology literature. Central propositions of identity theory states that one performs according to the expectations associated with the "identity" that he categorizes himself as (Buke and Tully 1977; Thoits, 1986). These expectations guide the behaviors of an individual (Burke, 1991; Burke and Reitzes, 1981). Social identity theory provides a similar view while focusing on the norms and expectations of a social category and linking them to behaviors (Hogg et al., 1995; Ashforth and Mael, 1996). An individual may have multiple identities, such as directors and executives, and these identities can sometimes conflict with one another and, therefore, must be "managed" or "balanced" (Allen, Wilder, & Atkinson, 1983; Ashforth & Mael, 1989). The salience of an identity depends on (1) contextual factors and (2) reflexive factors (Stryker, 1968; Burke & Reitzes, 1981). In sum, identity theory and social identity theory suggest that board members' multiple identities represent important antecedents to their behaviors, yet the salience of a specific identity is expected to vary based on contextual and reflexive factors.

In the second study, I investigate the role of group-dispatched executive directors facing a situation when both their group-affiliation identity and executive identity are relevant: assessing a protective investment through unrelated diversification. Utilizing the mechanisms and logic of identity theory and social identity theory, I identify a director's organizational tenure, an affiliated firm's performance and dependence on the group as relevant factors to determine the salience of a specific identity. Firstly, I suggest that longer organizational tenure of a group-dispatched executive director strengthens his/her commitment with the affiliated firm, making the executive identity more salient. Secondly, better performance of a group-affiliated firm, reflecting the executive role performance and satisfaction of the role expectations, will also help the executive identity become more salient. Lastly, the more an affiliated firm is embedded in the business network of its group, the more salient is the group-affiliation identity in a group-affiliated executive director. I test the hypotheses using 790 group-affiliated listed firms in China over a 3-year period from 2003 to 2005 and find support for my theoretical arguments.

1.4 Research Context: The Business Groups in China

I set my research context in China. An important, but rarely studied, feature of China's industrial growth has been the strong development of its business groups. In countries like South Korea and China boundaries of business groups have been defined more likely based upon ownership (Chang, 2003a; Yiu, Bruton, & Lu, 2005). For instance, in South Korea, the Korean Fair Trade Commission (KFTC) legally defines a business group as 'a group of companies, more than 30% of whose shares are owned by some individuals or by companies controlled by those individuals, and whose management such as appointing officers is substantially affected'. In China, according to the State Administration for

Industry and Commerce (SAIC), a business group should have a core company with a registered capital of over 50 million yuan (US$6 million), at least five affiliated companies with a major shareholding position (>51%), and a total registered capital (of the core and other affiliated companies) of over 100 million yuan (US$12 million). In this study, I refer to this official definition and focus on the business group in which affiliated companies are owned wholly or partially by a core company.

The structure of business groups varies widely among contexts. A Japanese keiretsu usually consists of a bank, a holding or trading company, and a group of manufacturing firms, which operate in diverse industries (Gerlach 1992; Lincoln et al. 1992). There are vertical keiretsus and horizontal keiretsus. In Korea, chaebols are typically controlled by one family or a few families and mostly are organized vertically (Kim, 1991). Business groups in Taiwan are relatively small and loosely integrated entities. Compared to the authoritarian style common in Korean and Japanese groups, they are characterized by a more decentralized managerial style (Fields 1995; Hamilton and Kao 1990). Like the keiretsus and chaebols, group-affiliated firms in Chinese business groups are connected with intensive inter-firm relations, including dispatched directors, debt relations, and trade ties (Li, 1995; Ma and Lu, 2005).

Not surprisingly, Chinese business groups have developed their own unique structure. Firstly, there were two types of business groups in China. The first type of business groups consists of large, primarily state-owned firms. The second type of business groups consists of groups of relatively small, often family-owned firms. Groups first emerged predominantly in the state-owned sector. Since 1978, China's government has experimented with market-oriented industrial reform, which aimed at enhancing the financial performance and

efficiency of the nation's enterprises. Policy makers in China studied the keiretsus and chaebols and began to permit firms to form business groups by acquiring ownership rights in each other in early 1990s. In this way, the state reduced its own role and became a shareholder with limited liability and administrative power (Dong and Hu, 1995). The year 1986 saw 1,630 state-owned business groups booming across the country (Ma and Lu, 2005). In 2005, after restructuring, there were 1,446 state-owned groups in China.

In recent years, the number of family-owned business groups increased markedly from 441 in 1997 to 1,138 in 2005, accounting for 40% of the total number of business groups. The sales revenue of family-owned business groups accounted for 29% of the total sales of all groups in 2005, which was a 17% increase from 1997. For instance, the largest private group in China during the 1990s, the Hope Group, has its origin from private farming. For another example, one of the largest high-tech non-state-owned business groups, the Lenovo group, was established by a few scientists and engineers in the mid-1980s.

Secondly, Chinese business groups are usually structured with a "parent" or "core" company, which acts as the headquarter on behalf of a controlling/dominant owner, such as the state. The core comapany is usually very powerful and the multi-layer structure allows it to control a large number of group affiliates in different industries or markets and expand quickly (Nolan, 2001; Fan, Wong, & Zhang, 2005; Li, Sun, & Liu, 2006). As a result, business groups achieve rapid growth through diversification for both state-owned and private-owned business groups. As Figure 1.1 shows, the business groups are not only diversified at the group level, namely, with child companies operating in multiple countries, but also diversified at the affiliate level, that is, with diversified grandchild companies.

The third characteristic of Chinese business groups is the foundation of a finance company. Group finance companies are responsible for managing cash flows among affiliated companies, allocating and redistributing funds or financing resources for new projects or acquisitions (Goto, 1982; Keister, 1998). In addition, another important function of finance companies is restructuring debts and arranging loans, credits, and stocks among affiliated companies themselves. They also coordinate the relationship between affiliated companies and external financial institutions, such as bank and investors. In particular, in a highly diversified business group, the role of a finance company could become more important because of its resource allocation and assets restructuring functions.

1.5 Contributions

This dissertation contributes to the literature in several ways. Firstly, this dissertation provides a fresh angle to understand the empirical puzzle why unrelated diversification strategy occurs at the group-affiliated firm level, despite that diversification at the business group level may be more effective. Recognizing the problems of information asymmetry and interest divergence between group-affiliated firms and their group headquarters, this study highlights the role of managers in group-affiliated firms and argues that they strategically choose unrelated diversification strategy to influence the group headquarters' resource allocation decision and to protect the affiliated firm's interest. This angle adds to the previous business group literature which stresses group headquarters' ability in pooling, mobilizing and allocating resources, assuming the same interests between group headquarters and managers in group-affiliated firms or believes that the divergence can be solved by contract.

Secondly, this study also extends the power-seeking perspective (Scharfstein & Stein, 2000; Rajan, Servaes, & Zingales, 2000). The initial power-seeking framework (Rajan, et al.,

2000) indicates that the diversity of resources and opportunities among divisions in a multidivisional diversified organization lead managers in divisions with more resources or opportunities to prefer "defensive investments" to investments that benefit the organization. The top management sees through the divisional managers' incentives and therefore transfers resources from the more efficient divisions to the less efficient divisions. This process explains the "discount" in multidivisional diversified firms. In this study, I employ the theoretical perspective to business group context to understand the diversification moves in group-affiliated firms. Enriching the framework with elements from influence cost models (Meyer, Milgrom, and Roberts, 1992) and the behavior theory of firm (Bourgeois, 1981; Bourgeois & Singh, 1983; Cyert & March, 1963), I argue that affiliated firms' managers have incentive to adopt "protective investment" that is not only "defensive" (protecting self-generated resource slack) but also "preemptive" (competing for more group level resource slack). I identify unrelated diversification in affiliated firms as one type of such "protective investment". Furthermore, highlighting the information asymmetry problem in a multidivisional organization, I argue that it is difficult for group headquarters to differentiate value-increasing investments from protective investments in group-affiliated firms. Therefore, the inefficiency of internal resource allocation within multidivisional organizations lies in the fact that group resources are transferred to less efficient projects, such as unrelated diversification, rather than to the less efficient divisions.

Thirdly, by investigating the effect of different types of acquired excess resources/slack in diversification-performance relationship, I propose to consider the unequal market availability of resources in order to reconcile the seemingly contradict arguments of internal market efficiency theory and agency theory. On one hand, internal market efficiency

theorists have conceptualized business groups as responses to market imperfections (Leff, 1976) and argued that group-affiliated firms may gain higher returns by acquiring and deploying resources from the business groups. On the other hand, the agency theorists emphasize the management entrenchment impact in diversification strategies, arguing that excess resources injected from business groups may exacerbate this problem by promoting undisciplined investments, encouraging the pursuit of pet projects (Nohria and Gulati, 1996), or rendering the management of the affiliated companies less diligent in their pursuit of efficiencies (Hundley and Jacobson, 1998). In this dissertation, I differentiate the market availability of resources and argue that acquiring market unavailable redeployable resources do help the performance of strategic moves in group-affiliated firms, while acquiring market available redeployable resources is more likely to exacerbate the agency problems and lead to inefficient strategic moves.

Fourthly, extending the literature on corporate governance by integrating identity theory and social identity theory from sociological psychology, this study also contributes to the board literature by explaining how the contextual and reflexive factors affect the salience of multiple identities in group-affiliated executive directors and therefore determine their control role or resource role in protective investment decisions. This effort is a response to the calls for more in-depth examination of both directors as individuals and the antecedents of board effectiveness (Finkelstein, and Hambrick, 1996; Hillman et al., 2008).

Lastly, this study adds to the literature on board of directors by investigating the role of board of directors in strategic interference in firms with controlling group shareholders. Recent research suggests that a firm's board of directors affects its strategies (see Pugliese et al., 2009 for a review). Focused on large firms with disperse ownership, this work classified

the directors based on their independence from management (Hillman et al., 2000). This study considers the directors' relation with the management and with the controlling shareholders.

CHAPTER 2 LITERATURE REVIEW

2.1 Theories of Business Groups

Business group is an intermediate case between firms and markets. When an owner owns a firm, this owner has the residual control rights over the use of assets of the firm (Grossman and Hart, 1986). Similarly, a business group as a collection of legally distinct firms that are partly or wholly owned and controlled by an individual or a group of individuals has right over the use of assets of the member firms. The owner of the group has the right to transfer assets across the member firms, hence establishing an internal market within a group. What makes a business group different from a diversified firm is that the right over the use of assets is limited because each member firm in a group is distinct by law. The existing work on business groups in emerging markets falls broadly into several streams of views: the internal market efficiency theory (Khanna and Palepu, 1997, 2000) arguing business groups in developing countries mimic the beneficial functions of market mechanisms that are present only in advanced economies; the tunneling theory within agency theory framework stressing issues related to pyramid structure and separation of cash flow rights and control rights in business groups; resource-based view (Guillen, 2000) emphasizing the generic capability of business groups in combining the requisite foreign and domestic resources for repeated industry entry; political perspective (e.g. Mahmood & Rufin, 2005) stressing the government's role in creation and development of business groups; and the network perspective (Chung, 2005) looking at factors at the human agency and organization level. Below, I review each stream of literature of business groups in detail.

2.1.1 The Internal Market Efficiency Theory

When a particular market mechanism is under-developed or not accessible, a business group can add value by providing its affiliates with alternative means of overcoming problems (Bae, Kang, & Kim, 2002). This line of work conceptualizes groups as responses to market imperfections. Earlier studies along this line, firstly, emphasized on capital market imperfections, arguing that business groups provide their member firms preferential access to capital (e.g. Aoki, 1990; Shin and Park, 1999; Khanna and Yafeh, 2005). Some groups possess a core firm that makes and receives loans and offers credit to affiliated firms thus performing a role resembling that of a bank or venture capitalist (Almeida & Wolfenzon, 2006). The main banks in keiretsu aid the member firms in financing both short-term projects and activities with more long-term objectives such as research and development (Miyashita and Russell 1994). This insider lending appears to substitute for a formal financial system and to grant firms access to otherwise scarce capital where markets are inadequate at allocating funds (Goto 1982). Such informal financing arrangements allocate funds to the highest return uses within a group, provide opportunities for diversification, and allow firms to engage in otherwise unaffordable activities (Keister, 1998). Insider lending can mitigate certain informational asymmetries and reduce transaction costs, allowing firms to gain control over their environments. In addition to the operation of internal capital allocation, business groups are also likely to enjoy preferential access to credit than independent firms. Lee (2008) investigates the political relationship between power elites and business groups and how it changed group level borrowings. By constructing a measure of political ties using biographical data on high school, college and regional ties, the author finds that the group level short-term borrowing is higher for those business groups with tight political ties in the crisis era in Korea, and decreased substantially after the crisis. Thus Lee concludes that

political ties of the business groups played a significant role in their external funding, especially during credit crunch period. Further, business groups have easier access to other sources of financing including bond financing than independent firms. Therefore, when the volume of bank credit decreases on an overall economy level, business groups are less affected than independent firms (Borensztein and Lee, 2002).

Secondly, business groups can alleviate failures in other markets. Affiliates within the same business group share intangible resources, such as technology, group-wide advertising and reputation. Such intangible assets do not depreciate in value with increased uses, encouraging diversification and large scope of economies. Kim (1996) illustrated that group-level R&D activities were the sources of competitive advantage in several leading industries in Korea, such as automobiles, electronics, and semiconductors. Examining the profitability of group-affiliated companies in Korea, Chang and Hong (2000) find evidence that the group-affiliated firms benefit from sharing intangible resources with other member firms.

Thirdly, business groups cultivate scarce human capital for their affiliates (Leff, 1978). In emerging markets where the institutions to supply high-quality executive talent are underdeveloped, large business groups can develop a pool of specialized management efficiently and dispatch them to affiliated firms that may have difficulty finding executive talent in the market (Khanna and Palepu, 1997). For example, in Japan and Korea, business groups dispatch senior management to assist affiliates in specific projects such as business turnaround, new venture start-up, or foreign market entry (Gerlach, 1992).

Fourthly, business group structure represents an effective corporate governance structure that can mitigate incentive, information, and control problems associated with agency conflicts (Kim, Hoskisson, & Wan, 2004). For example, in Japan, the main bank is

typically the largest lender and holds a substantial equity stake in group members. It thus has a strong incentive to monitor the group members closely to safeguard its own interests as both a lender and an equity holder, hence enforcing internal discipline as well as protecting other financial stakeholders (Berglof and Perotti, 1994). When an affiliate is in financial distress, the main bank along with key shareholder affiliates have the ability to compel the managers of the troubled firm to take necessary actions or to lead restructuring efforts, including dispatching new directors to and replacing top managers of the firm (Pascale and Rohlen, 1983; Sheard, 1994). Despite an inactive external market for corporate control in Japan (Kester, 1990), the business group system has an effective internal control mechanism in place to enforce ex-post punishment of opportunistic or incompetent managers among business group affiliates. To the extent that affiliates' managers are concerned with the potential consequences of managerial opportunism, the collective enforcement mechanism may also serve as a credible ex-ante corporate governance mechanism to thwart such behaviors.

Fifthly, the interlocking system within business groups may reduce informational asymmetries by facilitating the information flow (Haunschild 1993, 1994; Powell and Brantley 1992), or facilitate the diffusion of business practices (Rogers 1995, Davis and Powell 1992; Useem 1984) among group affiliates. Hoshi, Kashyap and Scharfstein (1991) find empirical evidence to support this point. Comparing the investment sensitivity to internal liquidity in keiretsu firms and independent firms, they find that Japanese main banks mitigate information problems in Keiretsu firms. Based on previous studies' prediction that liquidity is irrelevant when there are no information problem, they find that keiretsu firms which have closer bank ties show less sensitivity to liquidity than independent firms.

In addition, business groups provide a risk-sharing mechanism for affiliates (Nakatani, 1984; Sheard, 1994). As such, business group affiliates utilize interlocking shareholdings and other stable inter-firm linkages to insulate themselves from market forces. This mechanism provides a rationale why affiliates remain committed to business group affiliation. When a member is in financial distress, for instance, the group usually arranges a collective or group-wide rescue operation. Several examples were observed during the Asian Financial Crisis of 1997 and 1998. The chairman of Samsung Electronics and head of the family that controls Samsung Group, Lee Kun Hee, donated his personal wealth to serve the debts of Samsung Motors Inc, a group affiliated firm near bankruptcy in 1999. The controlling shareholders in CP Group sold its overseas assets to raise money to rescue its publicly listed Thai companies. The Salim group also sold its privately held overseas assets in order to bail out its publicly-listed affiliates in both the Philippines and Indonesia; it also moved funds from a publicly listed Hong Kong company to help the operations of a publicly listed Indonesian company. Gopalan, Nanda and Seru (2007) document that Indian business groups are characterized by intra-group loans as a way of transferring cash across group firms to support financially weaker firms. They argue that business groups provide support to avoid negative spillovers to the rest of the group resulted from default by a group firm. They find evidence showing that when an affiliate filed for bankruptcy in a group, the other affiliates in the group face significant drops in external financing, investments and profits, and their bankruptcy probability increases. Xu and Zhang (2008) also find that in Japan's context, there is a negative relationship between bankruptcy probability and the Keiretsu dependences.

Lastly, group affiliates and independent firms respond differently to environmental opportunities and threats. They found that, in nine French civil law countries in Latin

America and Europe, the environmental influence, such as change in country development, higher competition and deregulation, was moderated by business group structure. Compared to independent firms, group affiliates tend to involve more asset-restructuring along with country development, while they are likely to be associated with less asset restructuring in presence of higher competition and deregulation. Lu and Ma (2008) show that local partner's affiliation to a business group can replace the institutional voids through transacting internally and bringing political capital to the partner of an international joint venture and thus enhance its performance. In particular, a local partner's affiliation enhances the performance of the IJV when facing local restriction on foreign direct investment (FDI), while affiliation to a national business group enhances the performance of an IJV in an FDI-restricted industry. Tracking down the entry and exit of affiliates of a business group, Lee (2008) finds that expanding group level production portfolio can improve the immunity of the business groups from adverse macroeconomic shocks. Since exogenous shock affects industrial sectors asymmetrically, business groups with greater capability to switch products to the less susceptible sectors are more resilient in such outside shocks. The author shows that business groups add new products to the sectors in which they are not previously engaged in, experience less financial distress as much as 33 percent during the financial crisis. Thus, large diversified business groups are more likely to survive through product switching during extraordinary outside shocks, compared to independent firms (Lee, 2008).

Table 2.1 below summarized the internal market efficiency literature of business groups.

Table 2.1 The Internal Market Efficiency of Business Groups

Institutional Dimension	Institutions that Groups Imitate	Studies
Capital market	Venture capitalists, banks, private equity providers , mutual fund, auditor	Keister, 1998; Chang and Hong, 2000
Labor market	Management institute/business school, certification agency, head-hunting firm, relocation service	Leff, 1978;
Product market	Certification agency, regulatory authority, extrajudicial arbitration service	Lee, 2008; Mahmood and Mitchell, 2004
Institutional change or restriction	Moderators	Hoskisson et al. 2004; Lu and Ma, 2008; Luo and Chung, 2005
Contract enforcement	Courts, extrajudicial arbitration service	
Governance system	As large creditor and shareholder , compel incompetent managers	Keister, 1998; Kim, Hoskisson, & Wan, 2004
Risk-sharing system	Collective rescue operation in financial distress	Nakatani, 1990; Sheard, 1994; Gopalan, Nanda and Seru, 2007; Xu and Zhang, 2009

Note: adapted from Khanna and Palepu (1997)

Recent studies document the disappearing of internal capital markets in business groups. Lee, Park and Shin (2009) find that active internal capital markets within Korean chaebols relieve the financial constraints of the group-affiliated firms, allowing them to make efficient capital allocations during the early 1990s. As the Asian financial crisis unfolded, however, Korean government implemented major structure reforms on chaebols and required them to reduce debt level, which drove the chaebol firms to rely more on public debt markets instead of internal capital markets. Similarly, Borensztein and Lee (2002) analyze the changes in the allocation of bank loans in the post-crisis period in chaebol firms. They find that the crisis forced financial institutions to become more market-based in terms of credit appraisal and

loan allocation. As a result, chaebol firms gradually lost their preferential access to loans that they enjoyed in the pre-crisis period and are subject to more stringent profitability tests in order to obtain bank loans.

2.1.2 The Tunneling View of Business Groups

One of the main ideas in the tunneling view is that business groups are associated with (legal or illegal) minority shareholder expropriation. The insight steams from Johnson et al (2000)'s tunneling view. Shareholders incur agency costs in emerging economies resulting not only from management's shirking and perquisite consumption (Berle and Means, 1932), but also from controlling shareholders' expropriation of minority shareholders (Claessens et al., 2000; La Porta, et al., 1999). The agency problem between controlling and minority shareholders can be particularly severe in the presence of business groups because the pyramid group structure is complex and less transparent. It is more difficult for minority shareholders to determine where control resides in an affiliate. It is also hard to identify and challenge unfair intra-group transactions (Chang, 2003) since such networks provide significant opportunity for collusion or other unethical transactions (Hoskisson et al., 2000). In short, business group affiliation provides a means by which controlling shareholders can expand control and thus increases the likelihood of expropriation of minority shareholders. There is increasing evidence showing, indirectly or directly, the existence of tunneling.

Bertrand, Mehta, and Mullainathan (2002) examine tunneling in pyramidal ownership structures of Indian business groups. They show that the ultimate owners of business groups have strong incentives to divert resources from firms that are low in the pyramid toward ones that are high in the pyramid. Similarly, Bae, Kang, and Kim (2002) find that when chaebol firms make acquisitions, their stock prices on average fall. They conclude that when a chaebol makes an acquisition, the minority shareholders of chaebol firms lose. In contrast,

the controlling shareholders gain in such an acquisition, because it enhances the value of other firms in the group. This provides empirical evidence to the tunneling view. Chang (2003) provide evidence that controlling shareholders in Korean Chaebol firms use insider information to take direct and indirect equity stakes in profitable or promising firms, then transfer profits to other member firms through related party transactions. Kim, Jung and Kim (2005) find that during financial crisis periods, funds simply move toward the firms where controlling shareholders have high cash flow rights. They conclude that ownership structure distorts the allocation of internal funds in such a way as to benefit the controlling shareholders. Baek, Kang and Lee (2006) find that in the equity-linked private securities offerings, chaebol issuers involved intragroup deals set the prices to benefit their controlling shareholders. The authors also find that, compared with other types of issuers, chaebol issuers gain an 8.8% higher announcement return if they sell private securities at a premium to other member firms. These results showed that such offerings are used as a mechanism for tunneling among firms that belong to a chaebol and consistent with tunneling within business groups.

Table 2.2 Evidence of Tunneling: Literature Review Summary

Author (Year)	Setting	Key Findings
Bertrand, Mehta, and Mullainathan (2002)	India	Ultimate owners divert resources from firms low in the pyramid toward ones high in the pyramid.
Bae, Kang, and Kim (2002)	Korea	When chaebol firms make acquisitions, their stock prices on average fall. The controlling shareholders benefit because the acquisition enhances the value of other firms in the group.
Chang (2003)	Korea	Controlling shareholders in Korean Chaebol firms use insider information to take direct and indirect equity stakes in profitable or promising firms and transfer profits to affiliates through related party transactions.
Kim, Jung and Kim (2005)	Korea	During the financial crisis period, funds simply move toward the firms where controlling shareholders have high cash flow rights.
Baek, Kang and Lee (2006)	Korea	Equity-linked private securities offerings are used as a mechanism for tunneling among chaebol firms.

2.1.3 Propping or Tunneling

The above literature diverges on the functions of business groups: some researchers stressed their resource providing and risk-sharing functions, while others focused on issues related to tunneling resources by the major business group owners. Recently, there are a growing volumn of studies explaining this discrepancy.

Friedman, Johnson and Mitton (2003) argue that the groups choose how much to expropriate, but they can also inject private cash today in order to preserve their options to expropriate and to obtain a legitimate share of profits tomorrow. They suggest that when there is a moderately bad shock, the group is likely to bail out its affiliate. However, the group will abandon the firm, taking the money and run when there is a very bad shock. In addition, because the funding source of the business groups cannot commit not to bail out firms, it is tempted to bail them out ex post; hence, this expectation induces inefficient behavior (Roland, 2000). In such a way, large business groups exhibit a form of the soft

budget constraint, which is usually associated with government-backed enterprises or bank-supported firms (Dewatripont and Maskin, 1995).

Dow and McGuire (2009) investigate the response of Japanese Keiretsu to the changing economic and regulatory climate and find evidence that during strong economic times, Keiretsu tunnel profits from more weakly affiliated firms, while propping weakly aligned firms during economic recession. They indicate that the strengthened degree of adhesion to the horizontal keiretsu of many affiliated firms is a response to tightening credit conditions and the affiliates are trying to access the internal capital market of the business group during these times.

Kali and Sarkar (2005) further find that proppoing through profit transfers among firms within a group and better monitoring through group level directorial interlocks explains the higher marekt valuation of business group affiliated firms. The effect of propping and directorial interlocks on firm value depends on the equity stakes of the controlling shareholders. Propping appears to be the source of group affiliation benefits in firms with below median cash flow rights of the controlling shareholder, while director interlocks are the primary source of the group effect for firms where the controlling shareholders have above median cash flow rights.

Ferris, Kim and Kitsabunnarat (2003) determine that the cost associated with chaebol membership exceed its benefits. They find that chabol firms suffer a value loss due to pursuit of profit stability rather than profit maximization, overinvestment in low performing industries, and cross-subsidizing the weker members of their group. Although chaebols firms enjoy lower tax burdens and have greater debt capacity, the value loss exceeds these benefits.

2.1.4 Resource-based Theory of Business Group

The resource-based view of business groups developed by Guillen (2000) argues that business groups develop a generic capability of combining the requisite foreign and domestic resources for repeated industry entry. His main assumption is that entrepreneurs and firms in emerging economies create business groups if political-economic conditions allow them to acquire and maintain the capability of combining foreign and domestic resources-inputs, processes, and market access to repeatedly enter new industries. This capability for repeated industry entry consists of a bundle of skills that facilitate conducting feasibility studies, obtaining licenses from the state, arranging financial packages, securing technology and knowhow, setting up plants, hiring and training workforces, and establishing supply and distribution channels (Guillen, 2000). Moreover, this capability will sustain in emerging economies with asymmetric trade and investment conditions because they allow a few entrepreneurs and firms to develop this capability.

2.1.5 The Political View of Business Groups

The political perspective stressed the role of governments in initial creation and development of business groups in emerging economies (Mahmood & Rufin, 2005). In Japan, Gerlach (1992) and Lincoln et al. (1998) suggest that institutional evolution had led to the rise of zaibatsu and the later transition to keiretsu. In Taiwan, Chung (2001) identifies institutional incentives such as tax reduction as the primary variable that led to the emergence of business groups. In Korea, Kim (1997: 93) concludes that the state, globalization, and the legacy as Japanese colonial are the ascendance of chaebols. Governments also affect the size and structure of markets and ultimately influence the competitiveness of the business groups (Hillman & Keim, 1995). Through its political connections with different levels of government in an emerging economy, business groups acquire political capital. Such political

capital can give groups preference entry into restricted industries or geographic locations (Lu and Ma, 2008), access to critical resources, favorable policies, business licenses, local coordinated economic development, disputes resolutions, or preferred tax rate (Hill, 2002; Walder, 1995). Such political capital is unavailable to independent local firms (Evans, 1979; Peng et al., 2005).

2.1.6 The Network Perspective of Business Groups

Scholars adopting a network perspective of business groups focus on answering questions like "who the entrepreneurs are" and "how they build their business groups" through collecting market information, acquiring technological know-how and mobilizing necessary resources. They shift the research focus from macro-level factors as market forces, state policies, and other political-economic conditions to micro factors at the human agency and organization level (Chung, 2005). Employing the concept of personal networks from the network perspective, scholars explain business groups in China (Kennedy, 1997), Taiwan (Hamilton and Kao, 1990; Numazaki, 1996), Hong Kong, and Southeast Asia (East Asia Analytical Unit, 1995). In Taiwan's case, Hamilton (1997) and Hamilton and Kao (1990) argued that the decisions of diversification in Taiwan business groups in the initial stage were mainly driven by the consideration of maintaining the owners' personal networks. Numazaki (1996) showed that personal connections were applied in most steps of the founding of a business group from raising capital to cultivating political connections and recruiting personnel. He concludes that personal connections serve as the "human foundation" of a large-scale business group.

Luo and Chung (2005) further differentiate different types of personal connections in business groups and investigate their impacts on group performance, particularly, during institutional transition. They propose that during the economic transition towards market

economy, family social ties provide informal norms, which strengthen the intermediation within business groups and thus improve the performance of business groups. Family relationships also reduce strategic restructuring and therefore benefit group performance. The authors also find that while market transition enhanced the benefits of family social relationships, it did not enhance the benefits of common-identity relationships. Moreover, family ties' benefit is not linear, but rather diminishing after a threshold, indicating possible informational disadvantages and a legitimacy discount from foreign investors' perspective.

Kock and Guillen (2001) propose a 3-stage theoretical model of the growth of business groups, by combining resource-based view and network perspective. In the first stage, in a market where regulations were stringent and market competition was limited, the connections of the founding families were essential resources for the growth of the groups. Access to technical know-how, licenses and contracts through connections with foreign sources and domestic regulators grants business groups competitive capabilities. Since such networking capability is generic, groups were able to use them to enter different industries subsequently. In the second stage with higher market competition, more groups developed the networking capabilities. The benefit of such capabilities gradually diminished and the groups faced market pressure to improve efficiency and profitability (Amsden and Hikino 1994). At the final stage, when groups continued to learn, the competitive advantage moved toward innovation, and the diversification of business groups are more related and vertically integrated. Following this stream, Chung (2005) further stresses the importance of networks and the contexts in which the entrepreneurial process is embedded. In Chung's view, personal connections are not the 'necessary and sufficient condition' but only a necessary factor. Based on comparative case studies of 150 Taiwanese group founders, Chung located

several contingencies for network entrepreneurship such as entrepreneurs' gender, education, temporal events and geographical settings. Chung's longitudinal analysis of three groups in general provides support to Kock and Guillen's model. More specifically, in a tightly controlled operation environment networks are influential in the growth of the groups. At this stage, the group's capability to build networks with crucial foreign and domestic sources is the critical competitive advantage. As market institutions progressed, the benefits of networks declined. The core capabilities for competition changed to mass production and innovation.

2.2 Theories of Diversification

Diversification literature suggests that diversification has both value-enhancing and value-reducing effects. The potential benefits for a firm to operate in different industries include improved operating efficiency, greater market power advantages, greater ability to capture rents on scarce and firm-specific assets, enjoyment of internal capital market advantages, greater debt capacity, and lower taxes. The potential costs of diversification include the use of increased discretionary resources to undertake value-decreasing investments, cross-subsidies that allow poor divisions to drain resources from more efficient divisions, and misalignment of incentives between central and divisional managers. Below I review the two streams of studies on diversification respectively.

2.2.1 The Efficiency View of Diversification

The efficiency view of diversification draws on the literature of market power theory, resource-based view and transaction cost economics. The early literature on diversification based on the market power theory assert that diversified firms can employ a number of mechanisms to create and exploit market power advantages, which are largely unavailable to the more focused firms (Scherer, 1980).

2.2.1.1 Resource-based View

Later studies on diversification focus on understanding the performance of diversified firms by investigating the plausibility of scale and scope economies. Edith Penrose's (1959) classic Theory of the Growth of the Firm was probably the first systematic theory explaining the ex-ante reasons why firms diversify, because before this book, the diversification was probably "the most inadequately treated" characteristic of business firms in economic analysis (Penrose, 1959:104). The fundamental concept in Penrose's growth theory lies in "excess resources": a pool of unused productive services, resources, and special knowledge, all of which will always be found within any firm. Firms gradually accumulate excess resources as a non-intended consequence of their normal operations. Tasks become routinized and this releases human resources, such as managerial resources; some physical resources are indivisible, which means that they may not be fully exploited in their present use. In principle, these resources could be traded over markets; however, the presence of transaction costs will often hinder trading excess resources. This is particularly likely to be the case if the resources are knowledge resources (Teece, 1980). Diversification thus is a way of capturing rents on these scarce, firm-specific assets whose services are difficult to sell in intermediate markets (Penrose, 1959; Teece, 1980, 1982; Wernerfelt, 1984).

2.2.1.2 Efficient Internal Capital Market Perspective

Focusing on diversification creating an internal market, a stream of literature in Finance provides theory and evidence to that diversification creates value to firms. According to Alchian (1969), a key advantage of an efficiency of internal capital market is that it better shields investment projects from the information and incentive problems than external finance. In General electric's case, Alchian finds that GE "operates with greater speed to clear the market", and "make the information more available to both lenders and

borrowers than the external market". Weston (1970) states that resource allocation is more efficient in internal than in external capital markets. He contends that diversified firms allocate resources more efficiently because they create a larger internal capital market. Stulz (1990) supports this argument and finds that in diversified firms, the underinvestment problem described by Myers (1977) was attenuated in a larger internal capital market. Gertner, Scharfstein and Stein (1994) further elaborate the reason why corporate headquarters do a better job than external lenders, say, a bank, is because the residual control rights residing with the headquarters increase their incentive to monitoring, reduces managers' entrepreneurial incentives, and makes it easier to efficiently redeploy the assets of projects that are performing poorly under existing management. Stein (1997) argues that the allocation of capital within a diversified firm can create value if funds are diverted to business segments rich in investment opportunities but lacking sufficient self-generated funds. Khanna and Tice (2001) provide evidence that in related diversified firms, internal capital markets function well, as transfers are away from the worsening divisions. They argue that the reasons why related diversification may be efficient are (1) in firms diversified into related business, the headquarters have better information about the investment opportunities across divisions and thus can make better "winner picking" decisions; (2) less information asymmetry in such firms also enable the headquarters to better judge the relative performance of the difference divisions and thus better align the incentives with performance; (3) managers working on related divisions are likely to be transferred which make managers more likely to make decisions that increase firm value. Maksimovic and Phillips (2002) find that conglomerate firms' resource allocation is generally efficient as they grow more in industries in which their plants are productive when that industry experiences a positive

demand shock and when their other segments experience a negative shock. Billett and Mauer (2003) find that financing constraints are the main determinants of the internal capital market and firm value relationship. Subsidies to small financially constrained segments, regardless of their relative investment opportunities are good or poor, significantly increase excess value. Transfers of resources from segments with good relative investment opportunities significantly decrease the excess value of a diversified firm.

There is another recent study that provides evidence of a previously unexamined source of economic gains to diversification: the protection of shareholder wealth against expropriation by politicians and private litigants (Beneish, Jansen, Lewis, and Stuart, 2008). In the context of a politically regulated industry, the authors document that diversification brings positive abnormal returns to shareholders because it increases a firm's political influence through broader geographic presence and also because it transforms excess financial assets into physical and intangible assets which avoid expropriation.

2.2.2 The Inefficient View of Diversification

A variety of empirical evidence lends support to the view that a policy of corporate diversification is typically value reducing, leading conglomerates to trade at a lower stock value than comparable portfolios of specialized firms and be dismantled systematically in 1980s (Scharfsterin and Stein, 2000). Explanations for this underperformance focus on imperfect firm governance (agency theory), inefficient cross-subsidization (incorrect valuation of firm industry segments), or divisional managerial rent-seeking behaviors.

2.2.2.1 Agency-based Perspective of Diversification

A number of studies draw on agency theory to explain why a firm's managers may benefit from undertaking diversifications, even if shareholders do not. The central motives to increase diversification include managerial employment risk reduction and increased

executive compensation (Amihud & Lev, 1981). Agency theorists (e.g. Jensen and Meckling, 1976) have traditionally been concerned with the problem of the separation of the ownership of residual claims from the control of corporate decisions in large public traded corporations with diffuse ownership structures. Diversification may benefit managers because of the power and prestige associated with managing a larger firm (Jensen, 1986; Stulz, 1990), because managerial compensation is related to firm size (Jensen and Murphy, 1990), because diversification reduces the risk of managers' undiversified personal portfolios (Amihud and Lev, 1981), or because diversification helps make the manager indispensable to the firm (Shleifer and Vishny, 1989). As a result, managers may maintain a diversification strategy even if doing so may reduce shareholder wealth. Furthermore, under this hypothesis, managers will reduce diversification only if pressured to do so by internal or external monitoring mechanisms. Denis and his colleagues (1997) find that the level of diversification was negatively related to managerial equity ownership and to the equity ownership of outside blockholders. They also report that decreases in diversification are associated with external corporate control threats, financial distress, and management turnover. These findings suggest that agency problems are responsible for firms maintaining value-reducing diversification strategies. Agency problems may be especially prevalent when substantial free cash flow (Jensen, 1986) allows managers to finance acquisitions without the discipline of financial markets.

2.2.2.2 Cross-subsidies and Overinvestment in Diversified Firms

Another line of argument of the diversification discount is that conglomerates do not, on average, have more free cash flow, but their internal capital markets are less efficient in allocating a given amount of resources than external capital markets. Conglomerates tend to engage in inefficient cross-subsidization, spending relatively too much in some divisions and

too little in others (Scharfstein and Stein, 2000). A large amount of studies document the evidence of cross-subsidization in diversified firms and show that capital allocation tends to be inefficient. Lang and Stulz (1994) show that the Tobin's q of diversified firms was significantly smaller than the q of matching portfolios of specialized firms during the 1980s. Comparing the sum of stand-alone values for individual business segments in a diversified firm to the firm's actual value, Berger and Ofek (1995) find a 13% to 15% average value loss from diversification. Supporting the related-diversification hypothesis, they also find a smaller value loss when the segments of the diversified firms are in the same two-digit SIC code. The authors provide evidence that overinvestment and cross-subsidization lead to the value loss. Examining how different segments of the same oil firm reacted to the 1986 oil shock which reduced the company's cash flow, Lamont (1997)'s finding that oil companies significantly reduced their nonoil investment in 1986 lends support to that diversified companies tend to subsidize and overinvest in poorly-performing segments. Shin and Stulz (1998) find evidence for an active internal capital market by showing that the investment by segments of highly diversified firms is less sensitive to their cash flow than the investment of comparable single-segment firms. However, they also show that this benefit of internal market is less than previous researchers expect. Moreover, they find that segments with better investment opportunities are not differentiated from other segments, which is consistent with "socialism" perspective in Scharfstein and Stein (1996). Scharfstein (1998) finds that divisions operating in industries with high Tobin's q tend to invest less than their stand-alone industry peers, while divisions that operate in industries with low Tobin's q tend to invest more than their stand-alone industry peers. This sort of "socialism" in capital allocation in which investment tends to get equalized across divisions is particularly

conspicuous in a conglomerate's smaller divisions. The author argues that agency problems between corporate headquarters and investors are at the root of the inefficient cross-subsidization problem by showing that the problem is more pronounced in firms in which management has small equity stakes. Bernardo, Luo and Wang (2006) also show that firms do not necessarily choose the highest quality project in the presence of agency and information problems. Instead, firms bias project choice toward the weak division.

2.2.2.3 Internal Power Struggles and Resource Allocation in Diversified Firms

Though agency theory could explain generic overinvestment as an attempt by the CEO to entrench herself, it has limited explanation power on the internal misallocation of funds; the CEO should exploit all potential sources of value inside the firm, seeking agency rents from the overall pie (Rajan, Servaes, and Zingales, 2000). Accordingly, two recent models go a level deeper in the organization and focus on the role of rent-seeking activity by division managers. Scharfstein and Stein (2000) develop a two-tiered agency model in which inefficient division managers divert their time away from productive effort to enhance their outside options and increase their bargaining power when negotiating total compensation from the CEO. This model in some respects shared similar implications with the influence costs studies by Meyer, Milgrom, and Roberts (1992), which explains the very large volume of time-series variation in ownership of business divisions in reality. The key to Meyer et al's explanation is the different prospects between growth and decline for divisions and the resulted additional influence costs. For example, the managers might exaggerate the division's prospects in an attempt to gain access to corporate resources that can be used to prevent or delay the downsizing. Scharfstein and Stein push the question further and ask why the headquarters of the diversified firm not mitigate this problem through bribing the managers of inefficient divisions directly in return for their refraining from rent seeking.

Their arguments are because the CEO is herself an agent of outside shareholders. Therefore, the CEO may prefer diverting investment funds, which should be under the control of shareholders, toward the inefficient division to paying the division manager more cash using discretionary funds, which the CEO can control and potentially divert to herself.

Scharfstein and Stein's work was the first to develop the rent-seeking model. Later work, for example Rajan, Servaes and Zingales (2000), criticizes Scharfstein and Stein's rent-seeking model by arguing that CEOs would not prefer to misallocate potentially hundreds of millions of investment dollars in order to maintain discretion over a relatively small cash payment to the division manager. Instead, they analyze resource allocation in diversified firms and propose a *power-seeking perspective*. Their model's two basic assumptions are: (1) limited power of a headquarter over its divisions; (2) negotiated surplus distribution among divisions. Based on these assumptions, the authors determine how "the power to take decisions, or capture surplus," is distributed within the firm and thus to determine whether the internal capital market does a better job than the external one. They identify the diversity of investment opportunities and resources as the proxy for segment manager power. Division managers have autonomy to choose between an efficient investment and a defensive investment that protects their division's surplus from being expropriated by other managers. Thus, though the efficient investment maximizes firm value, a divisional manager may prefer the defensive investment when the surplus created by its division is far more than that in other divisions. The firm can mitigate this inefficiency by diverting the capital allocation to the divisions with less resources and investing opportunities.

Bernardo, Luo and Wang (2006) pointed out that incomplete managerial incentive contracts made by the firm are the key feature in both Scharfstein and Stein (2000) and Rajan

et al. (2000) models. Bernardo et al argue that, even when the firm can write managerial compensation contracts, the firm will still bias its project selection policy against the strong division in the presence of agency and information problem. Their core argument is that the optimal compensation contracts should consist of more performance pay and less salary in order to induce truthful reporting of project quality by the managers. However, the cost of providing incentive pay while maintaining truthful reporting is increasing in the proportion of projects of higher quality, which results in lower incentive pay and lower managerial effort in the strong division. Thus, as project quality and managerial efforts jointly determine project cash flow, the strong division's project needs to be of significantly higher quality to offset the lower managerial effort. In other words, Bernardo et al introduce the spread in managerial efforts resulted from the cost of writing more efficient compensation contract into the internal capital allocation scenarios and provide support to the inefficiency view.

The above studies are related to the literature that examines the agency and information problems in the capital budgeting process. Harris, Kriebel, and Raviv (1982) are the first to analyze intra-firm resource allocation in the presence of both information and incentive problems. The question they ask is "how should a firm allocate a resource among divisions when the productivity of the resource in each division is known only to the division manager?" They see that division managers have a preference for larger allocations because the resource could be substituted for costly managerial effort. They show that the optimal transfer price scheme in their setting is to allow division managers to choose price-quantity combinations from a menu of choices. Antle and Eppen (1985) show that in the presence of information asymmetry and moral hazard, organizational slack and resource rationing, the inefficiencies of organization, can occur even in an efficient organizational design. They

suggest that auditing and monitoring are substitutes for resource rationing, but both alternatives are costly.

2.2.2.4 Criticism of inefficient internal market evidence

Villalonga (2000) and Whited (2001) argue that much of inefficient internal market evidence is misleading because of biased estimates of the investment opportunities of the business segments of diversified firms. Villalonga show that if this bias is corrected or if the firm's activities are broken down into business units instead of Compustat segments, then the diversification discount reverts to a diversification premium. In addition, Chevalier (2000), Campa and Kedia (2002), and Hyland and Diltz (2002) argue that selection bias may explain the diversification discount and the evidence of inefficient cross-subsidies offered to explain it. In particular, Campa and Kedia and Hyland and Diltz find that diversified firms trade at a discount to their industry peers prior to becoming diversified, and Chevalier finds that the cross-subsidization patterns documented in the literature can be found among merger partners prior to merging.

Table 2.3 Methodology Review of Internal Capital Market Literature

Author and concepts	Shin and Park (1998), Shin and Stulz (1998)	Lang and Stulz (1994), Scharfstein (1998), Rajan , Servaes and Zingales (2000)	Billett and Mauer (2003)
Operations			
-Initial Resource Endowment		Segment's share of total assets	
-Cross-subsidy /Funds transfered	Regress a segments' capital expenditures on a proxy for the segment's unobservable Q, the segments' cash flow and other segments' cash flow	Difference between a segment's capital expenditures and the average or median capital expenditures of single-segment same-industry firms.	Subsidy: when Capex<ATCF Transfer: when ATCF> Capex
-Relative Efficiency of Segment (Segment investment opportunity)		The difference between a segment's asset-weighted average industry Q and the asset-weighted average of segment industry Qs for the firm.	$ROA-ROA_{remaining\ segments}$ >0: efficient segment <0: inefficient segment
-Diversity of Investment Opportunities		s.d of segment asset-weighted fitted Qs divided by the equally weighted average fitted Q.	same
-Financial Constraint of Segment		Sensitivity of a segment's investment to its own cash flow.	Probability of not paying dividend >0.5: not constrained <0.5: constrained
-Overall Value of a Diversified Firm's Internal Capital Market		Excess-value: the difference between the market value of a diversified firm and a portfolio of single-segment firms in the same three-digit SIC code.	
Problems	- Measurement error in Q will bias the coefficient estimates on the cash flow variables (White, 2001).	- Assumes that the investment opportunities facing divisions of conglomerate firms are identical to	-Non-dividend-paying firms are not necessarily face a larger cost of external financing than do

	- Cash flow of other segments may be correlated with the investment opportunities of the investing segment (Chavalier, 2000).	those of stand-alone firms in the same industry, which is not the case (Chavalier, 2000; Villalonga, 2000, Campa and Kedia, 2002, and Hyland and Diltz, 2002).	dividend-paying firms (Kaplan and Zingales, 1997, 2000).

2.2.3 The Discrepancy between Efficiency and Inefficiency Arguments of Diversification

The above reviewed two streams of literature on diversification can be further classified into two broad categories: one focus on the ex ante reasons for why firms diversify, while the other focus on ex post explanations for how diversification influence firm value (see Table 2.4). Looking closer at the two opposing views regarding why firms diversify, I note that despite their discrepancy, both views stress the concept of "excess resource", or slack. Resource-based view stresses the importance of resource slack as a driver of diversification and argues that diversification is a way of capturing rents on the excess resources whose services are difficult to sell in intermediate markets (e.g. Penrose, 1959). They view high slack relaxes controls and represents funds whose use may be approved even in the face of uncertainty (Nohria an Gulati, 1996). From this perspective, slack implies the ability to mobilize resources more readily or at lower cost from external agencies, such as providing reputation benefits and privileged access. In addition, slack allows the firms to interact or compete in its environment more boldly (Bourgeois, 1981). As more slack supplied to the firms, they can afford to experiment with new strategies by, for example, introducing new products, entering new markets (Hambrick & Snow, 1977), or introducing innovations (Cyert and March, 1963). This perspective stresses 'entrepreneurial ambition' of the management in a firm facing "slack". 'Entrepreneurial ambition' of the top management team is management's desire for growth and its propensity for taking risks to ensure that growth occurs (Penrose, 1959). This motivation of entrepreneurial management to transform slack resources into growth is rooted in the resource-based view (Mishina et al, 2004). Highly ambitious managers will seek to extract growth from resources, and thus will drive down slack to minimal levels, preferring to invest such resources to expand a firm's geographic market or product markets. For entrepreneurial managers, slack is 'waste', and they are sometimes even willing to endure short term deficits, or negative slack, in order to promote future growth (e.g.,

Bhide, 1992). In contrast, agency theorists suggest that slack can facilitate suboptimal management behaviors (Jensen, 1986). Firstly, more resources at discretion may reduce the scrutiny of the top management in scanning and evaluating alternative strategic choices (Bourgeois, 1981), or allow them to pursue pet project that accord better with their own preference than with economic considerations (Child, 1972; Jensen, 1986). Furthermore, existence of slack can also promote political activities among subdivisions because self-aggrandizing managers may engage in such behaviors in an effort to capture more than a fair share of resources, or new slack, from the system (Bourgeois, 1981).

Regarding how diversification influences firm value, researchers also hold opposing views, debating on the efficiency of internal resource allocation. In the center of this debate is the information asymmetry and agency problem within a diversified firm. The proponents of efficiency of internal market stress the flexibility of moving funds and less informational asymmetry and less agency problem, in particular, in related diversified firms (Khanna and Tice, 2001). In contrast, the proponents of inefficiency of internal resource allocation focus on the influence cost (Meyer et al., 1992), rent-seeking behavior of division managers (Scharfstein and Stein, 2000), or power-seeking investment decisions made by the division managers (Rajan et al., 2000). These models, essentially, argue that the division managers have self interests which are diverse from each other and from headquarter. Thus divisional managers have two ways to protect their self interests: for divisional managers from divisions with poor growth prospects, they are likely to engage in rent-seeking behaviors to lobby for more resources allocated to their division (Meyer et al., 1992; Scharfstein and Stein, 2000). For divisional managers from stronger divisions with more resource and opportunities, they may prefer defensive investments at the

cost of lower returns that would benefit them more directly, especially when their resources and opportunities are much better than the other division's.

Table 2.4 Summary of Diversification Literature

	Ex ante reasons of diversification		**Ex post explanations of diversification**	
	Efficiency	**Inefficiency**	**Efficiency**	**Inefficiency**
Literature	Penrose (1959), Teece (1980; 1982), Wernerfelt (1984)	Jensen and Meckling (1976), Amihud and Lev (1981), Denis et al. (1997)	Alchian (1969), Chandler (1977), Weston (1970), Stulz (1990), Gertner, Scharfstein and Stein (1994), Stein (1997), Khanna and Tice (2001), Maksimovic and Phillips (2002), Billett and Mauer (2003)	Lang and Stulz (1994), Lamont (1997), Scharfstein (1998), Shin and Stulz (1998), Rajan, Servaes, and Zingales (2000), Gertner et al., (2002), Bernardo, Luo and Wang (2006)
Theoretical Perspective	Resource-based view, Transaction cost economics	Agency theory	Operation efficiency; Internal capital market efficiency	Cross-subsidies and overinvestment; Internal power struggles
Research Focus	Why do firms diversify?		How does diversification influence firm value?	
Main Arguments	Diversification is a way of capturing rents on scarce, firm-specific assets whose services are difficult to sell in intermediate markets.	The central motives to increase diversification are managerial employment risk reduction and increased executive compensation.	Coordination of specialized divisions; sharing of resources; synergy; dominant logic. Higher incentive to monitor, less entrepreneurial incentives, and easier to efficiently redeploy assets.	Subsidize and overinvest in poorly-performing segments; socialism. Information asymmetry and diverse interest lead to internal power struggles.
Major Discrepancy	Facing slack, managers show entrepreneurial ambition	Facing slack (free cash flow), managers pursue perquisite and entrenchment	Flexibility in moving funds, less information asymmetry, stronger control	Presence of divergent interests and information asymmetry in diversified firms

2.3 Theories of Board of Directors

Boards of directors play multiple, and critical roles in organizations. Existing literature has conceptualized that board of directors fulfill two roles in organizations. First, they link organizations to critical resources in the environment and to valuable information residing in a network of director interlocks (Zald, 1969; Pfeffer, 1972; Hillman, 2005). Second, they play a role in administration and internal control, putatively responsible for setting policy and monitoring management (Zald, 1969; Fama and Jensen, 1983). The first role is based on resource dependence theory and the second is based on agency theory. For a long time, the two theories dominate every theoretical formulation involving boards of directors. Stewardship theory (Donaldson and Davis, 1991; Donaldson, 1990) challenges the behavior assumption in agency theory and proposes a "cooperative" view about the management and shareholder instead. Theorists in this stream stress a board structure that facilitates and empowers the management, rather than control and monitor them. In addition, several streams of research on governance recently emerged, taking a social psychological perspective to understand the behavior aspects of board of director (e.g., Golden-Biddle and Rao, 1997; Westphal, 1998; Westphal and Fredrickson, 2001; Hillman et al., 2008; Tuggle, et al., 2010). These studies underscore the importance of how context affects the behaviors of directors. Below I review the literature in detail.

2.3.1 The Resource Dependence Perspective

This resource dependence perspective is primarily concerned with the board's function of providing resources that are broadly defined as anything strengthening the weakness of a firm (Wernerfelt, 1984: 172). The theoretical underpinning of this function is based on work on resource dependence theory (Pfeffer and Salancik, 1978). Pfeffer and Salancik note that "when

an organization appoints an individual to a board, it expects the individual will come to support the organization, will concern himself with its problems, will variably present it to others, and will try to aid it" (1978: 163). This literature suggests that boards provide four primary benefits: (1) advice and counsel in important firm decisions such as the formulation of strategy (Judge & Zeithaml, 1992; Lorsch & MacIver, 1989), (2) legitimacy, (3) information channels between external organizations and the firm (Burt, 1980; Hillman et al., 2001), and (4) preferential access to resources such as capital (Mizruchi & Stearns, 1988) or innovation (Haunschild & Beckman, 1998).

The resource dependence perspective contends that a board's provision of resources has direct positive impact on firm performance. Resources help reduce dependency between the firm and external contingencies (Pfeffer & Salancik, 1978), help the firm deal with uncertainties (Pfeffer, 1972), lower its transaction costs (Williamson, 1984), and ultimately aid the firm in survival (Singh, House, & Tucker, 1986).

2.3.2 The Agency Perspective

Agency theory is the dominant approach to research on corporate governance and focus on the monitoring function of boards, or the "control" role (Boyd, 1990; Johnson, Daily, & Ellstrand, 1996; Mace, 1971; Pearce & Zahra, 1992; Zahra & Pearce, 1989). It holds that the problem of separation of ownership from management enables self-interested top managers, by virtue of their expertise and superior access to information, to misrepresent performance, misallocate resources, and engage in self-dealing at the expense of shareholders (Jensen and Meckling 1976). In the agency framework, the establishment of an independent board of directors consisting of legal outsiders is one of three major mechanisms (along with incentive schemes and the external takeover market) that exist to ensure alignment between the interests of

managers and owners (Fama and Jensen 1983). The board of directors serves as a watchdog that seeks to minimize conflicts of interest between managers and shareholders; it monitors the CEO (Boyd, 1995; Daily, 1996), evaluates and rewards the CEO/top management of the firm, plans CEO succession (Pitcher, Chreim, & Kisfalvi, 2000), and monitors strategy implementation (Rindova, 1999). Board monitoring can reduce agency costs inherent in the separation of ownership and control and, as a result, improve firm performance (Fama, 1980; Mizruchi, 1983; Zahra & Pearce, 1989).

Agency theorists argue that the primary precursor of the monitoring function is board incentives. They acknowledge that boards of directors have varied incentives to monitor to protect shareholder interests. When boards' incentives are aligned with shareholders' interests, they will be more effective monitors of management, and in this way, improve the firm performance (Fama, 1980; Jensen & Meckling, 1976). Two prominent proxies for board incentives have been identified in agency theory research: board dependence and director compensation. Agency theorists in general prefer boards dominated by independent outside directors (Barnhart, Marr, & Rosenstein, 1994; Baysinger & Butler, 1985; Daily, 1995; Daily & Dalton, 1994; Weisbach, 1988). They contend that boards consisting primarily of executive directors (current or former managers/employees of the firm) or those non-executive directors who have business dealings, family or social relationships with current management or the firm have less incentive to monitor management, due to their dependence on the CEO/organization. The theoretical hypothesis of this research predicts dependent boards will be less effective monitors and negatively associated with firm performance. The empirical research testing this hypothesis, however, has been mixed. A recent meta-analysis of fifty-four studies of board

dependence shows no significant statistical relationship between this proxy of board incentives to monitor and firm performance (Dalton et al., 1998).

Another antecedent of boards' incentives to monitor is equity compensation (Jensen, 1993). Equity compensation aligns the interests of directors with that of shareholders, thus motivating boards of directors to be more vigilant monitors (Elson, 1995). When boards share the benefits of better equity performance of the company, their incentives to pursue shareholder interests are stronger (Dalton et al., 2003). Research in this area suggests that board equity compensation will be positively associated with monitoring and firm performance. The statistical evidence to support this hypothesis, however, has also been inconclusive based on a recent meta-analysis (Dalton et al., 2003).

2.3.3 Stewardship Theory

Agency theory is fundamentally a theory of self-interest and enforced compliance (Perrow, 1986; Donaldson, 1990). It assumes that individuals weigh more of the utility of greater personal wealth, status, leisure, etc. and engage in actions that benefit their own interests. In contrast, stewardship theory, rooted in psychology and sociology, holds a less self-centered, more cooperative view of behavior of managers and argues that many managers are stewards whose motives are largely aligned with the objectives of their principals (Donaldson, 1990). According to this theory, a steward perceives pro-organizational, cooperative behaviors with higher utility than individualistic behaviors. Thus, a steward maximizes their own utility function through protecting and maximizing shareholders' wealth. Stewardship theorists focus on governance mechanisms that designed to empower managers and promote their voluntary coordination rather than those to monitor and control managers (Donaldson and Davis, 1991; Donaldson, 1990). In contrast to the opponents of agency theory, stewardship theorists argue that

a board structure with CEO assuming the chair of board can empower the CEO to determine strategy and ensure him to be responsible for the fate of the corporation, without fear of countermand by an outside chair of the board. They suggest that separating the two roles of CEO and board chair may create conflict or power struggles among corporate leaders as well as confusion about corporate objectives and expectations (Baglia et al., 1996). In particular, when a company has to overcome a crisis, which requires fast decisions and clear strategic orientation, the advantages of clear leadership might be most valuable (Mueller and Baker, 1997). Further, stewardship theorists suggest that when steward managers are controlled by principals as if they were opportunistic agents, they will feel frustrated and may not be able to develop effective, cooperative working relationship with principals (Davis, Schoorman, & Donaldson, 1997). Finally, stewardship theorists point out that their benign view of the shareholder-manager relationship is not applicable in all circumstances. They admit that in threatening events such as takeover attempts that break the natural bond between managers and shareholders, agency theory has better explanation power. Thus stewardship theory offers a context-specific complementary theoretical perspective to the agency theory on corporate governance (Lane et al., 1998).

2.3.4 A Multi-theoretical View of Board

In order to resolve the divergent views held by multiple theories, recent studies make efforts to develop a multi-theoretical view of board. For example, Shen (2003) proposes an evolutionary perspective and provides a potential resolution to the debate between agency theory proponents and stewardship theory proponents. The author suggests that board needs to focus on CEO leadership development in early CEO tenure, but to shift toward the control of managerial opportunism as CEOs prove their leadership on the job. During the early years of CEO tenure, the CEOs need to further develop their leadership to meet the demands of their new jobs, and

their relatively weak power position and vulnerability will help deter these new CEOs from pursuing personal interests. The problem of managerial opportunism is most likely to occur after CEOs have proven their leadership on the job. The significant increase in power not only gives CEOs discretion to pursue personal interests but also make them more entrenched in their position. The control-focused approach of governance proposed in agency theory may be appropriate only after CEOs have proven their leadership in office.

Lynall, Golden and Hillman (2003) contend that the predictive power of the alternative theories is contingent upon the life cycle stage at formation and the relative power of important stakeholders. A firm's resource needs, sophistication and complexity of systems and structures, and managerial capabilities are different across its life cycle stages. Specifically, during the entrepreneurial stage of the life cycle when the management authority is at risk, the CEO and external financier will turn to their social network for directors. In both the collectivity and formalization and control stages of the organizational life cycle, when CEOs have dominant power, they are more likely to recognize board as a potential asset in securing resources and reducing uncertainties. Thus, resource dependence theory is more helpful to explain board composition in this situation. In contrast, if financiers have relative power, institutional theory will be particularly applicable to board formation (i.e. establish legitimacy in external environment) in the collectivity stage. Also, if financiers have relative power, as the scale and complexity of the business increase, as in the formalization and control stage, there will be greater incentives for board monitoring (agency theory dominates).

2.3.5 Social Psychological and Sociopolitical Perspectives

In recent years, organizational sociologists have critiqued that the agency model of boards is limited because it overlooks how boards are embedded in structural, political, cognitive

and cultural contexts (Granovetter 1985; Hirsch et al. 1987; Zukin and DiMaggio 1991; Golden-Biddle and Rao, 1997). This stream of research emphasizes that the functioning of a board is contingent on contextual factors, such as director interlocks (Davis 1991), political struggles between business and non-business organizations (Roe, 1991), structured regularities of mental process (Staw and Ross, 1987) or organizational culture (Golden-Biddle and Rao, 1997).

One main theme of studies in this tradition is to understand how boards participate in strategic decision making as an active part of it (Stiles and Taylor, 1996). Jensen and Zajac (2004) and Useem and Zelleke (2006) highlight that boards participate in these processes through continuously interacting with managers and/or other stakeholders. Golden and Zajac (2001) investigate the demographic and processual profile of boards on strategic change. They suggest that the effect of demography, for example board tenure, on strategic change is likely to be curvilinear, which help reconcile some of the conflicting findings in prior top management team and group literature. Specifically, board with low tenure would have much less rich information based on which to suggest strategic change, while boards with very high tenure are likely to be more rigid and committed to established practices and procedures. In addition, they propose that the demographic and processual features of boards interact with a board's power to affect change, having a stronger impact on strategic change when boards are more powerful.

Carpenter and Westphal (2001) develop a sociocognitive perspective on how appointments to other boards affect the capability of directors of a firm to monitor and advise its management in the strategic decision making process. This perspective suggests the importance of directors' networks of appointments to other boards in determining whether they have the appropriate strategic knowledge and perspective to monitor and advise management. The authors find that in a stable operating environment, appointments to the boards of other firms that are

strategically related to the focal firm provide directors with relevant strategic knowledge and perspective and increase the level of board monitoring and advice interaction on strategic issues. In contrast, in a unstable operating environment, appointments to the boards of other firms that are heterogeneous in their strategic relatedness to the focal firm can bring in higher level of board capability in monitoring and advice interactions. They conclude that the strategic context of social network ties, not the simple number of ties, is an important influence on corporate governance.

Westphal (1999) draws on the literature in advice seeking and social ties in organization and considers how social factors such as trust and perceived social obligations in CEO-board relationship may promote rather than hinder board involvement and effectiveness in strategy-making process. Apart from the dominant view of how a lack of board social independence from management affects a board's contribution to strategic decision making, Westphal's study proposes a "collaborative board model". It shows that a lack of social independence of board, i.e. the friendship ties between a CEO and a board or director appointment by a CEO, can increase board involvement and firm performance by raising the frequency of advice and counsel interactions between CEOs and outside directors. Personal relationship can alleviate impression management concerns, such as the fear of appearing uncertain or dependent, and concerns about revealing sensitive information, especially when the colleagues are in a position to evaluate the advice seekers' performance.

Several studies, based on the social psychology approach, find evidence that the power of CEOs restrict the boards to play an active role in shaping the organization's strategy. Westphal and Zajac (1995) show that, in the new director selection process, CEO and existing board members tend to support new directors with demographic similarity with them. The relative

power of CEOs and boards predicts which part is more likely to realize his preferences. This is because that people develop self-esteem and self-identity from perceived group membership and demographic similarity enforces such group membership (Tsui, Egan, and O'Reilly, 1992). In addition, CEOs may find it easier to interact and communicate with board that is characterized with compatible leadership and communication styles (Wagner, Pfeffer, and O'Reilly, 1984; O'Reilly, Caldwell, and Barnett, 1989). The authors also find that higher demographic similarity between CEOs and the board result in higher CEO compensation. In their additional post hoc analysis, the researchers find a strong general correspondence between the characteristics of incumbent CEOs and those of new directors. This shows that the appointment of new directors may typically promote CEO entrenchment rather than board control. In a similar vein, Zajac and Westphal (1996) show that powerful top managers attempt to maintain their control by selecting and retaining board members with experience on other passive boards and excluding individuals with experience on more active boards.

Golden-Biddle and Rao (1997) takes a fresh look at the board governance and shows how organizational identity influences the construction and enactment of the director's role and shapes interactions among board of directors and managers. Organizational identity is defined as the members' shared beliefs about the central, enduring, and distinctive characteristics of the organization. The scholars study the role of directors in a nonprofit organization where directors see themselves as vigilant monitors and as friendly, supportive colleagues to the management. Thus they introduce the idea of "conflict of commitment," a form of intra-role conflict. When managerial breaching actions occur, the directors are in face of a dilemma of upholding one dimension of identity while undermining the other. In a similar vein, Hillman, Nicholson and Shropshire (2008) integrate identity theory and social identity theory research with literature on

board monitoring and resource provision, and argue that directors' multiple identities (e.g., parent, teacher, chairman; nationality, ethnicity, gender, political affiliation) shape their behavior. In particular, the authors suggest that directors with multiple identities will have response flexibility in a complex and ambiguous situation. Multiple identities also give individual directors advantages like overall status security, enrichment of personality, and ego gratification. Moreover, the authors argue that not only the presence of directors' multiple identities affect behavior, the strength of identification with each also matters. They identify identification with the organization (e.g. tenure), being a director (e.g. professional director), being a CEO, with shareholders and stakeholders to affect the directors' engagement in monitoring and resource provision.

Table 2.5 Theoretical Perspectives on Boards of Directors

Dimension	Resource Dependence	Agency Theory	Stewardship Approach	A Multi-theoretical View
Theoretical Origins	Organizational Theory & Sociology	Economics & Finance	Psychology and Sociology	Evolutionary theory
Behavioral Assumptions		Individualists	Collectivist	
Behavior Tendencies		Opportunism	Cooperation	Both opportunism and cooperation
Board role	Resource providing	Control and monitor	Service and advice	(1) Early CEO tenure: develop CEO leadership, Later CEO tenure: control; (2) Entrepreneurial stage: resource role; Later stage: legitimacy or control role.
Management-Shareholder Relations	Goal alignment	Goal conflict	Goal alignment	
Board Structure	Stress director interlocks	Outsiders Non-duality	Insiders, Social ties, and CEO duality	e.g. Early CEO tenure: CEO duality, Later CEO tenure: Non-duality;
Representative Studies	Daily & Dalton (1994a,b); Gales & Kesner (1994); Hillman, Cannella, & Paetzold (2000); Pfeffer (1972); Pfeffer & Salancik (1978)	Mace (1971); Zahra & Pearce (1989); Boyd (1990); Pearce & Zahra (1992); Johnson, Daily, & Ellstrand (1996)	Davis, Schoorman, & Donaldson (1997)	Shen (2003); Lynall, Golden and Hillman (2003)

Table 2.6 Literature Review for Board Governance

Author (Year)	Setting	Conceptual Base	Explained Variable	Explanatory Variables	Taxonomy for directors	Key Findings	Role of directors
Weisbach, 1988 JFE	367 firms with CEO succession from 77-80	Agency theory	CEO succession (dummy)	Earning, stock return; Mixed board; Outside board; Board shareholding.	Inside; Outside; Grey	Strong association between prior performance and the probability of a resignation for companies with outsider-dominated boards. The monitoring effect of the outsider board is not a function of the ownership of the board.	Evaluate and monitor management by replacing an errant CEO.
Hermalin and Weisbach, 1988	142 firms from 71-83		Addition and Departure of inside/outside directors	CEO tenure (2 dummies), change of earnings (t-2), stock returns, change of industries (2 component)	Inside; Outside; Grey	When CEO nears retirement, firms tend to add inside directors as possible candidates to be the next CEO. Just after a CEO change, inside director with short tenures appear more likely to leave the board. Inside directors are more likely to leave the board and outside directors are more likely to join after a firm performs poorly and when a firm leaves a product market.	
Byrd and Hickman, 1992, JFE	128 tender offer bids by 11 firms from 80-87	Agency theory	Abnormal return at the announcement of a tender offer	Independent board; Fraction independent Directors; stock ownership of each type of directors.	Inside; Affiliated outside; Independent outside	Bidding firms on which independent outside directors hold at least 50% of the seats have significantly higher abnormal returns than other bidders. The relationship is nonlinear.	Ratify and monitor managerial incentive by reviewing acquisition proposals .

Author (Year)	Setting	Conceptual Base	Explained Variable	Explanatory Variables	Taxonomy for directors	Key Findings	Role of directors
Brickley, et al , 1994, JFE	247 firms adopting poison pills in 84-86	Agency theory	Abnormal return at the poison-pill announcement	Fraction of outside director board seats	Inside; Grey; Outside	Stock market reaction to announcements of poison pills is positive when the board has a majority of outside directors and negative when it does not. The results are driven by directors who are retired executives from other companies.	Outside directors represent the interests of shareholders, not of the management
Johnson, Hoskisson and Hitt, 1993, SMJ	92 firms restructuring during 85-90	Agency theory	Board involvement in the decision of restructuring or acquisition (survey item)	Ratio of outside directors, outside director equity, TMT equity, strategic control (survey), TMT size, mean TMT tenure, mean board tenure, TMT education level; demographic heterogeneity .	Outside, inside and quasi-insider	Boards influence firms either through strategic controls or through financial mechanisms. More non-executive directors and outside board member equity were positively related to the involvement of the board on restructuring decisions. TMT equity, use of strategic controls, tenure, organization tenure, and education level were all negatively related to board involvement in restructuring decisions.	
Daily and Schwek, 1996, JM	conceptual	Agency theory and resource dependence theory	1. governance structure choice 2. performance		Inside dominated v.s outside dominated	A firm might elect a CEO or board dominance structure as compared to more balanced governance structures. The efficacy of such choices may depend on (1) the portfolio exposure and globalization of the firm, (2) its ownership patterns, and (3) resource dependence and information requirements.	Interdependencies among CEO, TMT and boards of directors

Author (Year)	Setting	Conceptual Base	Explained Variable	Explanatory Variables	Taxonomy for directors	Key Findings	Role of directors
Zajac and Westphal, 1996, ASQ	491 corporations from 85 to 92	Synthesizing economic, sociological and behavioral literature on CEO-board relationship	Change in appointments to board with high or low control over management	Participation in increased board control: increased outsider ratio, CEO/board chair separation, reduced diversification, greater compensation contingency and reduced total compensation		Powerful actors in the CEO-board relationship affect the diffusion of board independence through the selection and retention of directors whose prior directorship experiences suggest differential sympathy for their interests.	
Gulati and Westphal, 1999, ASQ	600 firms from Fortune and Forbes 500 indexes of US	Social network of board interlocks	Alliance formation	Interlock tie, board control , CEO/board cooperation (both survey and archival data), third-party ties		The mere presence of a board interlock tie between two firms does not appear to increase (or decrease) the likelihood that they will enter into a strategic alliance with one another. Higher level of independent board control over management actually decreased the likelihood of subsequent alliance formation between them, while higher levels of CEO/board cooperation in strategic decision making raised the likelihood that the two firms would enter into an alliance. Indirect third-party ties primarily amplify whatever relational dispositions already exist among directly connected actors	

Author (Year)	Setting	Conceptual Base	Explained Variable	Explanatory Variables	Taxonomy for directors	Key Findings	Role of directors
Westphal, 1999, AMJ	243 firms	Collaborative board model	1. board monitoring and board advice and counsel interactions (survey) 2. ROE and MBV	1. the portion of a board appointed after a CEO; CEO-board friendship ties (survey); CEO incentive alignment (CEO ownership and long-term incentive plan compensation)	Affiliated directors: friendship ties (independent); family ties; business ties.	Not only that social ties typically fail to reduce the level of board monitoring activity, but also that such ties enhance the provision of advice and counsel from outside directors on strategic issues. CEO incentive alignment moderated relationships between social ties and board involvement. CEO-board collaboration and control are independently and positively related to subsequent firm performance.	Monitoring and advice
Hillman et al, 2000, JMS	Conceptual and 14 airlines from 68-88	Resource dependence role of directors	Board replacements		Insiders, business experts, support specialists, and community inflentials	A taxonomy of directors is presented specifically for studying the resource dependence role. The boar's function as a link to the external environment is an important one, and firms respond to significant changes in their external environment by altering board composition.	Resource dependence role of directors
Carpenter and Westphal, 2001	250 firms from Forbes 1000 index of US firms in 1995	Socio-cognitive perspective	Directors' perceived ability to contribute to board discussions, board monitoring and board advice interactions (survey)	Board ties weighted by relatedness in product market, foreign market, diversification Internationalization. Board ties weighted by heterogeneity in the above four relatedness. State and unstable environment.	Inside and outside directors were combined in terms of relatedness as there is no significant difference	The monitoring and advising behavior of directors depends on the strategic perspective and base of expertise provided by their appointments to other boards. Strategically related board ties enhance board involvement in firms facing relatively stable environments, and strategically heterogeneous board ties enhance involvement in firms facing relatively unstable environments.	Board interlock ties affect a firm's corporate governance to the degree that such ties are aligned with the strategic needs of the firm.

Author (Year)	Setting	Conceptual Base	Explained Variable	Explanatory Variables	Taxonomy for directors	Key Findings	Role of directors
Peng, 2004, SMJ	405 Chinese listed firms from 92-96	Agency theory, resource dependence theory and institutional theory	ROE, and sales growth	Affiliated (mostly institutional) outside directors; Non-affiliated (mostly individual) outside directors	Inside, quasi-inside (state), affiliated outsider (institutional non-affiliated outsider (individual)	Outsider directors are associated with a higher sales growth performance, but have little impact on financial performance like ROE. Only affiliated (mostly institutional) directors play a positive role on performance. Non-affiliated (individual) directors have no influence on performance. The legitimacy-seeking imperative is documented by the norm-formation processes during which various firms appoint outside directors.	Not all outside directors are likely to have a positive impact on performance;
Ryan and Wiggins, 2004, JFE	1018 S&P firms in 1997	Agency theory	Total board compensation, equity-based compensation fraction, and dummy	Board size, insider percentage, CEO tenure, duality, founding family CEO dummy	Inside, grey and outside	Independent directors have a bargaining advantage over the CEO that results in compensation more closely aligned with shareholder's objectives. Firms with more non-executive directors on their boards award directors more equity-based compensation. When the CEO's power over the board increases, compensation provides weaker incentives to monitor. Firms with more inside directors and with entrenched CEOs use less equity-based pay. Firms with entrenched CEOs and CEOs who also chair the board are less likely to replace cash pay with equity.	

Author (Year)	Setting	Conceptual Base	Explained Variable	Explanatory Variables	Taxonomy for directors	Key Findings	Role of directors
Yeh and Woidtke, 2005, JBF	251 firms in 1998 in Taiwan		1. board affiliation: fraction of directors affiliated with the largest shareholder group 2. Tobin's Q and ROA	1.Family control dummy, ownership and control of the largest shareholder, no of directors, duality, second largest shareholder dummy; 2. family control dummy and affiliated board members	Control affiliated directors	Board affiliation is higher when negative entrenchment effects are strong. Negative entrenchment effects are measured by divergence in control and cash flow rights, family control and duality. Board affiliation is lower when cash flow rights are higher (positive incentive). Relative firm value is negatively related to board affiliation in family controlled firms.	Affiliated director dominated board is a proxy for poor governance
Hillman, 2005, JM	300 firms in 2000	Resource dependence theory	adjusted market capitalization, MB, ROA, ROS	Number of politicians, board size, firm size, prior performance,	Directors with political experience	Firms with politicians on the board are associated with better market-based performance, and the relationship is more pronounced within heavily regulated industries, compared to less regulated industries.	Indications of what types of linkages are largely absent.
Combs, et al, 2007 JMS	73 firms	Agency and power circulation theories	Abnormal return following an unexpected CEO death	Power of CEO: CEO board tenure, CEO ownership, CEO duality	Outside (refined)	CEO power from the sources of ownership and duality moderate the negative relationship between board composition and firm performance Outside director dominated boards may not always benefit shareholder and that CEO power should be considered when constructing boards.	
Deutsch, et al, 2007	1500 S&P firms from 96-02	Dual agency model	Rate of acquisitions	Stock and stock-option compensation of outside directors; proportion of outside directors	outside and inside	Stock and stock option pay for outside directors are related in an inverted U-shaped manner to a firm's acquisition rate and that for stock options, this relationship is moderated by board composition.	

CHAPTER 3 UNRELATED DIVERSIFICATION AND INTERNAL RESOURCE TRANSFER IN BUSINESS GROUPS

3.1 Introduction

The business group literature has paid little attention to diversification strategy in group-affiliated firms, implicitly relying on the proposition that diversification at the group level substitutes for and precludes diversification at the affiliate level (Charabarti, Singh, & Mahmood, 2007). Prior studies suggest that, in less developed economies, business groups enable individual affiliated firms within a group to share resources. To the extent that diversified groups act as internal markets for their affiliated firms, there might be less need and fewer benefits for group-affiliated firms diversifying themselves. This literature expects that diversification occurs at the group level is more effective than at the individual affiliated firm level (Chang and Hong, 2002; Khanna and Palepu, 1997; Kock and Guillen, 2001). Thus, despite the anecdotal and empirical evidence suggesting that group-affiliated firms do diversify (Chang and Hong, 2002), the questions of why they diversify and what is the outcome of this strategy remain intriguing.

In this study, using power-seeking perspective of internal market (Scharfstein & Stein, 2000; Rajan, Servaes, & Zingales, 2000) as conceptual springboard, I develop an enriched framework to explain the motives and performance of diversification strategy in group-affiliated firms. I argue that managers in group-affiliated firms are likely to engage in diversification as a strategic choice, or “protective investment”, to protect the resources generated by the affiliated firms from being shared by other affiliated firms in the group. Such strategy can also potentially help group-affiliated firms compete for a larger share of group-level slack resources. Thus, managers in affiliated firms can play a significant role in influencing the resource allocation decision in a business group. My theoretical framework highlights the need for slack resources of

managers in affiliated firms, information asymmetry and diverge interests between affiliated firms and group headquarters.

3.2 An Enriched Power-seeking Perspective of Resource Allocation in Business Groups

3.2.1 The Power-seeking Perspective in Diversified Firms

The power-seeking perspective, which is developed in the context of a diversified organization, is proposed in Rajan, Servaes and Zingales (2000)'s study. It is based on two basic assumptions: limited power of a headquarter over its divisions and resource sharing through negotiation. The first assumption states that a headquarter can only redistribute resources ex ante, but it cannot commit to a future distribution of resources. The second assumption is about the observation that resources are distributed among divisions through negotiations, and divisions can affect the share of resources they receive through their choice of investment. Based on the two assumptions, Rajan et al. argue that division managers have autonomy to choose between an efficient investment and a "defensive investment". While the efficient investment maximizes the value of the firm, a defensive investment protects the division's surplus from being expropriated by other managers. Several examples of a defensive investment are: one that is overly specialized, one that can reduce a division's dependence on other divisions, or one that stays within a division though outsourcing it is more efficient for the division. According to the power-seeking perspective, the self-interested division managers are more likely to choose defensive investments. The difficulty in contracting the surplus distribution rule among the divisions and the cost to monitor the investment decisions with the funds allocated within a firm enable divisional managers to do so. In particular, managers of divisions with more investment opportunity and resource endowment that create far greater surplus than other divisions have stronger incentive to choose defensive investments. As a result, top management will tend to

transfer resources from divisions with good opportunities to divisions with poor opportunities, leading to more inefficient investment and less valuable firms.

Indeed, the power-seeking perspective is related to several streams of previous literature. More directly related is Scharfsterin and Stein (1997) which follows the influence cost model of Meyer et al. (1992). The influence cost models (Milgrom, 1988; Milgrom and Roberts, 1990; Meyer, Milgrom, and Roberts, 1992) also recognize that divisions have incentives to attempt to affect the distribution of organizational decisions. Influence costs include the resources that are used to affect the distribution of benefits rather than to create value, the value that is lost when influence results in suboptimal decision, and the deterioration of organizational performance. The influence cost models were developed to explain the particular decisions to divest declining units. The models argue that senior managers of firms have discretion over a range of managerial decisions that can create rents and quasi-rents within the organization and they can shift the distribution of these rents within the organization. This creates incentives for divisions to attempt to influence senior managers' decisions and alter their distributive impact. At the same time, senior decision makers have to rely on information provided by these division members, which creates the opportunity for division members to influence the resource allocation decisions. In particular, when a division has weak performance and bad prospect, the division's manager is likely to engage in influence activities to get more resources allocated (Meyer, Milgrom, and Roberts, 1992). In order to justify the desired allocation, the manager may emphasize advantages in her own division and disadvantages in others, or even distort or conceal information. Such influence activities diminish organizational efficiency. In this way, the influence cost models suggest that top management see through these lobbying efforts and will divest these weak divisions.

A second related class of theory that also concerns political behaviors within organization is the behavior theory of firm (Bourgeois, 1981; Bourgeois & Singh, 1983; Cyert & March, 1963). Although Cyert and March (1963) contend that more slack should reduce conflict of divergent subunit interests and thus mitigate political activities, other behavior theorists argue that slack resources provide opportunity for self-aggrandizing managers to engage in political behaviors attempting to capture more share of new slack in the system (Astley, 1978). This is because when a surplus is suddenly generated, it takes time before resources are distributed based on technical requirements. Thus, during the period when the destination of excess resources has not been decided, it is "up for grabs" and division managers will engage in the bargaining or coalition-forming activities needed to capture some of the uncommitted resources. This political behavior could be more prominent during relatively bad times or emergencies when the necessity for cuts in slack becomes apparent. Managers will act to preserve their resource levels. These self-preservation instincts will be manifested through bargaining behaviors in the resource allocation decision process.

3.2.2 The Enriched Power-seeking Framework and Unrelated Diversification

In this study, I enrich the power-seeking framework with elements from influence cost models and the behavior theory of firm and employ it to business group context to understand the unrelated diversification moves in group-affiliated firms. A business group is a typical multi-divisional structure organization (Chang and Hong, 2000), under which individual affiliated firms function as operating divisions that are tightly controlled by group headquarter staff (Chang & Choi, 1988; Chang & Hong, 2000; Chang, 2003). Compared to operating divisions, group-affiliated firms usually enjoy more investment autonomy.

The three models, in one way or another, assumes that a multi-division organization is characterized by problems of information asymmetry and interest divergence. Division managers possess private information pertinent to their divisions' opportunities and constraints, relative to headquarters, which makes it difficult for headquarters to deploy resources efficiently. If goal congruence exists between division managers and headquarters, information asymmetry is not an issue because managers will want to reveal the true condition to headquarters. However, division managers and headquarters usually have divergent interests. As Cyert and March (1963) put: "Basically, each division manager was more motivated focus on his own differentiated goals than those of the corporation. In effect, this is what the control and reward system told him he should do". Previous studies also report that when a headquarter attempted to get multiple divisions to collaborate in providing one product through sharing resources, the program immediately ran into the parochial interests of each division (Lorsch & Allen, 1973). There is also anecdotal evidence specific to business groups that suggests the existence of information asymmetry and divergent interest issues. A report (2007) from China-co, a consulting firm specialized in internal control of business groups, finds that, after a group acquired a new group-affiliated firm, executives of the new group-affiliated firm have "divergent goals and strategies from those of the group, …and thus they tend to conceal the key operating details and report the financial information to the group strategically." Existing theories of business groups, however, often minimize the issues of informaton asymmetry and interest divergence. They tend to rest on the assumption that group headqaurters will have complete information about their affiliated firms so that they can allocate group-level resources to the best places. When a group-affiliated firm needs resources to sustain operation or expand into certain markets, the group headquarter can mobilize resources from other affiliated firms to help (internal market efficiency); or when a

group-affiliated firm generates more resources, for example, in the form of excess free cash flow, the group headquarter will transfer these resources away and subsidize other less profitable affiliated firms (cross-subsidization). In these formulations, the role of managers in group-affilited firms in influencing resource allocation decision is minimized, too.

The coordination in a diversified firm centers on resource allocation among divisions. There are two types of resources of concern in previous literature: the growth-induced resources of a division and the resources accrued at the firm level. Growth-induced resources can be accumulated as a non-intended consequence of routinized operation. It can also accrue as a result of good organization performance in prior period (Voss, Sirdeshmukh, & Voss, 2008). It can be determined by industry structure, i.e. industry nature, stage of life cycle (Sharfman, Wolf, Chase, & Tansik, 1988). The resources accrued at the firm level come from the capacity of the organization to generate extra resources from the enviormnet and are exogenous the growth of an individual division, as addition credit raised from banks, or scare resources obtained government agencies (Bourgeois & Singh, 1983). The power-seeking model focuses on managers in stronger division with more resources endowment and investment opportunities trying to keep the growth-induced resources through defensive investments. In comparison, the influence cost models and the behavior theory of firm stress the rent-seeking activities of division managers aiming at more resources accrued at the firm level. Thus, in order to under the holistic internal power struggles within a multi-divisional firm, it is useful to enrich the power-seeking model by integrating the influence cost models and the behavior theory of firm. This enriched power-seeking perspective provides a framework to understand divisions protecting growth-induced resources through defensive investments and lobbying for more resources that are accrued at the firm level.

As in a diversified firm, allocating resources among affiliated firms is a major function of business group headquarters (Chang & Hong, 2000). Their role is to maximize group level profit by pooling physical and financial resources generated from affiliated firms and reallocate them in order of pre-determined priority (Chang & Hong, 2000). Therefore, extending the enriched power-seeking perspective to the business group context, I argue that managers in group-affiliated firms, with both self-aggrandizing and self-perservation incentives, are likely to adopt strategies to protect their growth-induced resources from being shared by other affiliated firms and lobby for more resources accrued at the group level. More specifically, pursuing unrelated diversificaiton is likely to be a type of such strategies because, first, unrelated diversificaiton increases the affiliated firms' ability to influence the group headquarters to either supply more resources or limit transfer away of resources. Second, diversificaiton changes the compositions of firms' assets away from cash to harder-to-expropriate physical and intangible assets.

My arguments are similar to that of Beneish et al. (2008), who examines diversification in tobacco firms in the presence of potential decline demand in tobacco and increasing political expropriation threats. Beneish et al suggest that tobacco firms might choose domestic geographic expansion to increase tobacco firms' influence in more political districts. Similarly, Stulz (2005) suggests that, in regimes with high expropriation risk, firms might choose to invest in projects that would have negative net present value absent expropriation risk. Other work also documents that firms have incentive to make income-decreasing accounting choices to reduce the likelihood of wealth transfer by politicians (Watts and Zimmerman, 1978). I discuss this issue in detail in the next section.

3.3 Unrelated Diversification and Internal Resources Transfer

In this study, I propose that managers in group-affiliated firms can influence the internal resource allocation through strategic choices, for example, engaging in unrelated diversificaiton. Unrelated diversification can be a "defensive investment" (Rajan et al., 2000) that prevents the growth-induced resources from being shared or expropriated. It can also serve as a "preemptive move", helping group-affiliated firms compete for more group level resources. Several mechanisms help explain why unrelated diversificaiton moves can serve the two purposes. Firstly, unrelated diversification increases a group-affiliated firm's power or influence in a group. Prior research has conceptualized business group as a power-dependence system, in which the power of a group-affiliated firm fundamentally resides in its dependence on other group-affiliated firms (Kim et al., 2004). The less dependent an affiliated firm, the more power advantage it will maintain. Such power advantages can include better positions to voice their opinions on group-wide issues, less susceptibility to monitoring and influence of the group headquarter or other member firms, more capability to block attempts by the group headquarter or other member firms to force anything on them (Kim et al., 2004), or stronger bargaining power over issues such as transfer prices for funds (Scherer, 1980). Expanded industry presence can reduce a group-affiliated firm's dependence on other group-affiliated firms, and therefore will strengthen its power or influence within the group (Ranjan et al., 2000). Moreover, similar as in the market, in business groups, entering new markets grants a group-affiliated firm more power in the internal market because it enables the firm to meet other member firms in more than one markets. This multi-market contact can increase firms' mutual recognition of interdependence, dampen competitive activities, and strengthen strategic behaviour. Thus, the power derived from operating in multiple markets enables a group-affiliated firm to reduce the

likelihood and/or amount of adverse wealth transfer by the group headquarter, and increase its political influence in lobbying for more group-level resources.

A second mechanism by which unrelated diversification is prefered by mamnagers in group-affiliated firms is through changes in the liquidity of the firms' assets. Unrelated diversification can transform excess financial assets into physical and intangible assets of operations (Beneish et al, 2008), creating "shallower pockets" that attract less attention from groups. Holding excess cash in balance sheet, investing it in financial assets, or returning it to shareholders may attract more attention from the group and lead to expected expropriation (Warner, 2006). Beneish et al (2008) provide evidence that less expected political expropriation costs through geographic expansion in tobacoo firms when the expanding firms' liquidity is high, or when the transactions are an all-cash transactions.

Thirdly, a critical advantage of unrelated diversification strategy is that implementation of such strategy can justify the requirement of more resource commitment. Diversification reduces both the growth-induced resources (e.g. free cash flow) and signals the need of more group-level resources. Diversification into other product markets is usually interpreted as a growth strategy (Penrose, 1959). Increased level of diversification in revenue sources of an affiliate signals to the group that the affiliate faces more market opportunities, or has capabilities to leverage into other product markets.

Previous literature discussed that different types of slack resources give managers greater or lesser degrees of discretion and flexibility in their approach to protect the firm through reducing internal or external pressures (Sharfman, Wolf, Chase, & Tansik, 1988). Drawing on these studies, I classify the slack resources into redeployable and non-redeployable resources. Redeployable resources refer to highly flexible resources that can provide a variety of difference

services and can be converted to other uses easily (Sharfman et al., 1988; Tan & Peng, 2003). The more specific a resource is to a particular use, the less discretion management has in deploying excess amounts to alternative uses (e.g., Wernerfelt and Montgomery, 1988). Examples of redeployable resources include land use right, cash or credit lines that are available for use for a variety of purposes (Voss et al., 2008). In contrast, non-redeployable resources, which serve a particular use, cannot be easily deployed to alternative uses (e.g. Montgomery and Wernerfelt, 1988). Examples include stocks of dedicated investments such as production capacity and specialized skilled labor (Greve, 2003). Non-redeployable resources can be used only as protection in a few specific situations, such increased demand or capacity failure (Sharfman, Wolf, Chase, & Tansik, 1988). Structural constraints limit their redeployment for novel or exploratory activities. Moreover, once allocated, their specialized nature make them less useful if the task at hand changes (Mishina, Pollock, & Porac, 2004). Excess non-redeployable resources may even be viewed as costs (Voss et al., 2008). Therefore, managers in group-affiliated firm are more likely to adopt unrelated diversification strategies to protect as well as to compete for more redeployable resources. These arguments lead to the following prediction:

> **Hypothesis 1:** *Group-affiliated firms with higher level of unrelated diversification will be associated with more net-inflow of redeployable resources from the business groups.*

3.4 Acquired Group Resources and Performance of Unrelated Diversification

Up to this point, I have argued that managers in group-affiliated firms may have incentives to pursue unrelated diversification strategy to influence the internal transfer of resources within business groups. However, the impact of the resource allocation on the subsequent performance of the diversification strategy remains unclear. In this section, I will look into this issue in detail.

In essence, I argue that the subsequent economic impact is contingent on the market availability of the resources transferred. Many factors may influence the availability of resources. Some resources can be rare and valuable because exchange of such resources involves a large amount of transaction costs. The high transaction costs can relate to the presence of context-dependent features of certain resources. For example, the tacit nature of technological knowledge raises information asymmetries for the buying firm. In order to avoid incurring those costs, firms have traditionally limited their access to technology trade, and have preferred to develop technologies in-house or to integrate backwards towards technology supply (Grossman and Hart, 1986; Teece, 1988; Pisano, 1990). In addition, the high transaction costs can also relate to the evolution of institutional environment. Government regulations and interventions, in particular in emerging economies, may also lead to market unavailability of certain resources. For example, higher entry barriers to certain markets for private-owned competitors and foreign investments largely affect the market development of resources (Fan, Wang, Zhang, & Zhu, 2003). These regulations and interventions make the resources less available for organizations. In addition, the market development for some sources requires other conditions to be satisfied. For example, transactions of technology require higher contract law enforcement and property right protections which are absent in emerging economies. It is worthnoting that institutional environment in emerging economies is evolving quickly. The emergence of intermediaries and reduction of transaction costs make resources previously unavailable become gradually available in these economies.

In particular, when the transferred redeployable resources are unavailable in the market, they usually take the form of ownership rights of legal agreements that give an organization control over scarce and valuable inputs, patents, proprietary technology or rights to use scarce

resources. Higher net inflow of such resources from the groups is most likely to benefit the group-affiliated firms' diversification move for the following reasons. Exclusive access to the market-unavailable redeployable resources provides affiliated firms with competitive advantages, in comparison to stand-alone firms. Acquisition of this type of resources from business groups can facilitate introduction of new products or entering new markets of a group-affiliated firm. Such resources mute the problems of resource scarcity and provide a source of funds for these activities that would normally face difficulties in the face of lack of these resources. Take land use right in China for example. China adopts dual land tenure system under which land ownership is independent of land use rights. The land is owned either by the state ("State Land") or by rural collective economic organization ("Collective Land"). Firms can acquire land use rights in state land by grant, allocation or lease. Along with the market reforms in China, the competition for land use rights has become intensive and most firms find it difficult, costly, or time-consuming to obtain land use rights. This underdeveloped external market largely hinders the expansion of Chinese enterprises. Business groups usually have privilege in obtaining land use rights because of their reputation, significance in the local economy or political ties. As a result, business groups are commonly large owners of land use rights. They can coordinate the expansion needs of their affiliated firms and provide support by transferring land use rights among them. Acquisitions of this sort of assets from business groups largely relieve the predicaments of diversification strategy faced by the group-affiliated firms. Take technology for another example. Previous literature suggests that business groups facilitate innovation by providing institutional infrastructures (Mahmood and Mitchell, 2004). In emerging economies, innovation activities in stand-alone firms are hindered by the relatively inefficient markets. By contrast, business groups are able to raise external capital more easily due to lower default risk

and greater ability to attract foreign capital (Khanna and Yafeh, 2000), to incubate a pool of talented scientists, to create technological linkages with firms in advanced economies (Hobday, 1995). Therefore, business groups possess more resources to conduct innovation activities. Access to the outputs of these innovations, such as patents or proprietary technology, can open up the possibility for differentiation and segmentation and firms achieve higher performance by exploiting a "core skill" (Bettis, 1981).

In sum, consistent with the internal market efficiency perspective, I propose the following hypothesis:

> **Hypothesis 2:** *Acquiring market unavailable redeployable resources will improve the profitability of unrelated diversification in group-affiliated firms.*

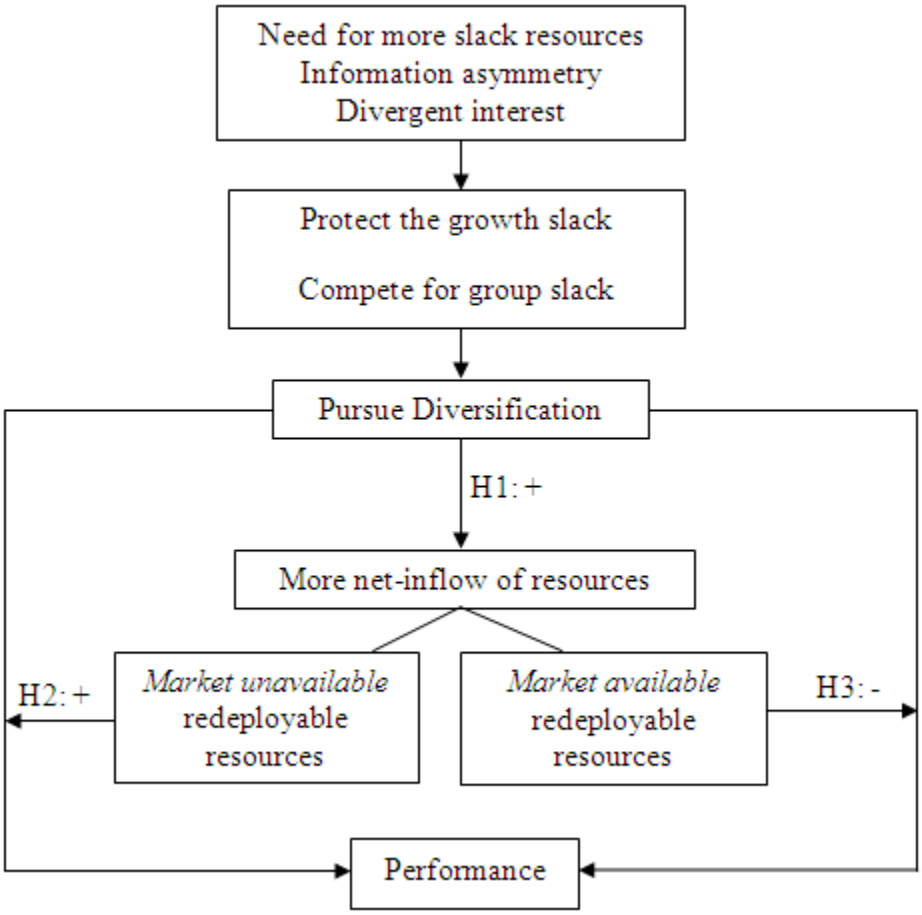
Another type of redeployable resources that affiliates can acquire from their group is market-available redeployable resources, which can have alternative uses and can be quickly obtained from the market. One important form of a market-available and redeployable resource is financial resource. Financial resources are in general the most flexible of all resources and the easiest to redeploy in different markets (Greve, 2003). Previous studies have suggested that the internal market benefits of business group decline along with market development in emerging economies (Khanna and Palepu, 2000). Thus, the costs of acquiring market available and redeployable resources from groups are likely to exceed the benefits because, firstly, easier access to market-available redeployable resources may lead the affiliate management less scrutinous in scanning alternative investment opportunities or seizing the timing of entry (Bourgeois, 1981), or to pursue undisciplined investment activities that rarely yield economic benefits (Jensen, 1986, 1993; Nohria and Gulati, 1996). Ozbas and Scharfstein (2008) provide evidence that the investment of stand-alone businesses is generally more responsive to the industry investment opportunities than is the investment of conglomerate segments.

Secondly, business group structure can offset external monitoring mechanisms for utilizing such resources. Prior research has shown that debt can serve a disciplinary role by limiting managerial discretion over investment, which is valuable for shareholders if investment projects exhibit poor growth opportunities. When a firm is affiliated with a business group, it may access cheaper loans that are based less on the projects' economic merits (Chang & Hong, 2000). For instance, the banks may provide the loans to state-owned business group affiliates due to central or local government influence. In addition, the banks may relax the borrowing conditions on the repayment capacity of the firms or the growth potential of the projects because of the debt guarantees provided by the group headquarter or other affiliates. The debt guarantees between the apparently independent loan borrower (the affiliated firm) and the guaranteeing party (the group), however, is not reliable because the two parties are actually intricately related and economically dependent on each other. These arguments lead to the below prediction:

> **Hypothesis 3:** *Acquiring market available redeployable resources will decrease the profitability of unrelated diversification in group-affiliated firms.*

I summarize the above-discussed framework to understand unrelated diversification strategy in group-affiliated firms in Figure 3.1 below.

Figure 3.1 Theoretical Framework to Understand Unrelated Diversification Strategy in Group-affiliated Firms



3.5 Methods

3.5.1 Sample

I tested the hypotheses using the related party transactions of all Chinese listed companies over the period of 2000 to 2005. I collected the dataset in three steps. Firstly, I identified whether a Chinese listed company belonged to a business group using *Large Corporations of China*; a list from the State-Owned Assets Supervision and Administration Commission of the State Council (SASAC). *Large Corporations of China* is a directory published by the NBSC and it is an authoritative publicly available source of data on Chinese business groups. I identified the group affiliation of a listed company by examining if its largest

shareholder is in the list of the business groups in this publication. I matched the largest shareholders of the listed companies to the group name lists and found 790 public firms in China affiliated with business groups. Secondly, I used CSMAR Financial Database developed by CSMAR info for the data of related party transactions. CSMAR database is a leading provider of financial data in China that serves over 1500 domestic financial companies and has reputable financial institutions like Merrill Lynch, Credit Suisse, and CLSA as its customers in the international market. By timely updating their data from annual reports, semi-annual reports, and various announcements made by each company, CSMAR database provides a complete data of "related party transactions" reported in the reports of all Chinese listed companies. Chinese listed companies' annual reports are required by the authority to disclose the identities of their related parties in these transactions. They include the firms' controlling shareholder, significant shareholders, member firms under a same controlling shareholder, subsidiaries and so on. The related party transactions also have a variety of types including purchase and sales of goods and services, joint venture, purchase and sales of assets, providing debt guarantee etc. In this study, I focus on two of the most common transactions between the group affiliated listed firms and their group: debt guarantee and acquisition of intangible assets. In total, I have 2811 records of these transactions over 2000 to 2005, among which reception of debt guarantee was the most frequent transactions (1,200 records) followed by transactions related to intangible assets (812 records), provision of debt guarantee (476 records). Lastly, I collected other firm level information (including performance, equity shareholding, sales, assets etc) of all Chinese listed companies from 2000 to 2005 from CSMAR database. We then merged our business group data and related party transactions data with the firm level information. Thus, my final sample consisted of a total of 2383 observations of 790 group-affiliated companies.

Table 3.1 Patterns of Capital and Assets Flows between Business Group-affiliated Listed Firms and Their Groups

Year	Provision of Debt Guarantees and Cash (no of events)	Receipts of Debt Guarantee and Cash (no of events)	Intangible Assets Acquisition (no of events)
2000	67	167	151
2001	94	214	167
2002	108	286	169
2003	95	264	181
2004	84	222	95
2005	28	47	49
Total	476	1200	812

Table 3.2 Summary Intragroup Resources Transfer Characteristics

	Sample: Group Firms			
	Mean	Median	Min	Max
Gross group financial resources inflows (in millions of rmb)	2400	161	0	8014
Gross group financial resources outflows (in millions of rmb)	343	80	0	33966
Gross group intangible assets inflows (in millions of rmb)	54	1.97	0	17824
Financial resources net receivers (in millions of rmb)	245	161	0	8014
Financial resources net providers (in millions of rmb)	271	70	0	33550
Group financial resources inflow/Equity (in percent)	45.1	24.4	0	618

3.5.2 Variables

Transfer of redeployable resources. I used the sum of market available and unavailable resources as the measure of acquisition of redeployable resources, which includes both financial resources and intangible resources. ***Transfer of market available redeployable resources.*** Financial resources represent a key market available redeployable resource. The financial flowing within business groups takes various forms such as cash, loans, debt guarantees, and

venture capital. In China, bank loan is the main source for firms to obtain funds and the most common way for business groups to provide financial resources is through supplying debt guarantees to their affiliates. A debt guarantee to a business group affiliate refers to a guarantee issued by the group or other affiliates who will ensure repayment of a loan made to the affiliate by a bank. Receiving debt guarantees enables an affiliate to obtain financing at lower interest rate than otherwise would be available. Firms that provide debt guarantees are fully exposed to the default risk because in most cases, the debt guarantee is a joint liability guarantee. In a general guarantee relationship, the guarantor needs to fulfill his responsibility only when the guarantee is not able to fulfill the liability or liquidated. In a joint liability guarantee relationship, however, banks can ask either the debtor or the guarantor to repay the loans. Technically, this is the equivalent of the guarantor borrowing money from banks for the guarantee. Such arrangement thus increases the contingent liability of the guarantor and limits its ability to raise capital. I could not measure the extent of direct loans between affiliates since loans are usually short-term financing and the financial statements do not have detailed disclosure on them. The same measurement have been used in previous business group literature (e.g. Chang and Hong, 2000; Chang, 2003). Therefore, I measure transfer of market available redeployable resources by a business group's net supply of debt guarantee at time t, divided by the equity base of the receiving affiliate. ***Transfer of market unavailable redeployable resources.*** I use intangible assets as the proxy for market unavailable redeployable resources. Business groups transfer intangible assets like patents, brand names, technology, and land use rights to their affiliates. I measure transfer of market unavailable redeployable resources by a business group's transfer of intangible assets at time t, divided by the equity base of the receiving affiliate.

Unrelated diversification. I operationalize unrelated diversification in two ways. The first is a measure using an entropy index approach (Palepu, 1985). The entropy measure of a firm's diversification is defined as "a weighted average of the shares of the segments" (Palepu, 1985, p. 252). The weight is assumed the logarithm of the inverse of the proportion of total business in each segment (Chatterjee & Blocher, 1992). The values of indices vary from zero to values greater than one. The greater the value of the index, the greater is the diversification level of a firm. The entropy measure is attractive because it takes into account "two elements of diversification: (i) the number of segments in which a firm operates, and (ii) the relative importance of each of the segments in the total sales" (Palepu, 1985, p. 252).

Using the information on revenues by product category for Chinese listed companies, I calculated the entropy indices of unrelated diversification for the year t in the following manner. Consider a firm operating in *N* industry segments (four-digit SIC industries). Those *N* industry segments aggregate into *M* industry groups (two-digit SIC industries). Let P_i be the share of the *i*th segment in the total sales of the firm. The unrelated diversification is defined as:

$$\text{Unrelated diversification}=\sum_M \sum_{i\epsilon j} P_i^j \ln\left(\frac{1}{P_i^j}\right)$$

I calculated increased unrelated diversification as an increase in the entropy measure exceeding one standard deviation, to capture relatively significant change and exclude change that reflects random alterations in segment sales levels (Amit and Livnat, 1988; Zajac and Westphal, 1996). The results were substantively similar using alternative thresholds, such as an increase of one-half of one standard deviation. The standard deviation is based on change in diversification from year t-1 to year t.

The second measure of unrelated diversification is ***addition of industry groups***. It is a dummy variable that equals one when a firm adds in one or more industry groups (two-digit SIC

industries) where the firm does not yet have operations in a particular year. The dummy variable is assigned to zero when it divests industry groups or stays in the same industry groups. Table 3.3 summarizes the product market change in Chinese group-affiliated firms from 2000-2005. Table 3.3 shows that, over the years, approximately 20% of Chinese group-affiliated firms expand into one or more industry groups each year, though fewer firms are continuing the expansion in years that are more recent.

Table 3.3 Product Market Change in Chinese Group-Affiliated Firms (No. of firms and %)

Year	Change of Industry Groups (two-digit SIC code)														Total No.
	-3		-2		-1		0		1		2		3		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
2001	7	1.15	27	4.42	81	13.26	292	47.79	125	20.46	54	8.84	25	4.09	611
2002	11	1.54	32	4.48	88	12.31	389	54.41	137	19.16	37	5.17	21	2.94	715
2003	17	2.83	49	8.15	114	18.97	301	50.08	91	15.14	19	3.16	10	1.66	601
2004	6	0.97	15	2.42	61	9.855	403	65.11	109	17.61	18	2.91	7	1.13	619
2005	8	1.09	17	2.31	97	13.18	516	70.11	79	10.73	17	2.31	2	0.27	736

Note: Zero indicates that firms operate in the same portfolio of industry groups as the previous year. One (or two, 3) indicates that firms expand into one (or two, three) more industry group(s) (two-digit SIC code) in this year, compared to the previous year, while -1 (or -2. -3) indicates that firms divest one (or two, three) industry group(s) in this year, compared to the previous year.

Firm Profitability. To facilitate comparison with prior research (e.g. Kim, et al., 2004; Chakrabarti, et al., 2007), we initially considered using one or all of the three accounting-based measures: return on assets (ROA), return on total sales (ROS) and return on equity (ROE). Geringer, Tallman and Olsen (2000) provided an extensive argument for justifying the use of accounting-based performance measures. ROA and ROS are frequently used by managers and external analysts as a measure of management effectiveness and the various measures of profitability are typically related (Robins and Wiersema, 1995). In addition, the announcement of such figures as ROA or ROS is usually followed by changes in stock prices, which indicates that these reports have significant signaling effects (Fama and Miller, 1972). ROE is a better measure of profitability if capital markets are mature and competitive. In the case of developing countries such as China where the debt-equity ratio is high and capital markets are imperfect, ROA and

ROS are considered superior indicators to ROE. This ruled out ROE. Given that both ROS and the control variables in our regression equations were functions of total sales, regression equations with ROS as the dependent variable might reflect mathematical artifacts as well as true relations (Farris, Parry, & Ailawadi, 1992). As such, we employed ROA rather than ROS as our dependent variable, computed as the ratio of net income to total assets. ROA is also superior than other market-based performance measures as assets are less likely to be reported strategically or to be manipulated (Rajan et al., 2000). As such, I employed ROA as my dependent variable in all cases. ROA is computed as net income divided by average total assets.

Control Variables. As previously mentioned, Chinese business groups can generally be divided into two types by ownership, i.e. state-owned/government-owned and private-owned (Ma & Lu, 2005). Companies with different ownership identity can pursue different diversification strategy (Delios, Zhou & Xu, 2008). Therefore, I included a dummy variable to control for the effect of ownership structure. This dummy variable, state control, equals 1 if the business group is state owned, 0 if it is privately owned. In addition to ownership structure, the ownership concentration can also affect the ability of the group in pooling and distributing resources among its member firms. For instance, a group shareholder has a grater control (and interest) over an affiliated company which it wholly owns (i.e. 100%) as compared to another which it owns less shares (e.g. 15%). To control for this difference, I included the group shareholding as a control in the analysis. To account for industry effects (Dess, Ireland, and Hitt, 1990), I included a set of 18 indicator variables to mark each firm's primary 2-digit industry. I included a measure of firm size, as measured by the natural log of firm sales, as size has consistently been found to be related to the performance of a firm. I included the debt to equity ratio to control for financial structure, as heavily leveraged firms tend to have lower performance

than those with a lower debt to equity ratio. By controlling for financial structure, I separated the effects of debt reliance from those of group affiliation. I included firm age to account for firm experience effects. Finally, given the multiple observations I had across time, I included indicator variables to mark the year of observation. Noted that for the sake of ease of presentation of the results, I did not display the coefficient estimates for the year and industry fixed effects.

3.5.3 Analysis

To analyze change in unrelated diversification and net inflow of redeployable resources, first, I needed to adjust for possible endogeneity since each firm's top executives can decide on the firm's level of diversification (Fan, et al, 2008). This decision could well reflect a range of background factors that might also affect the flow of redeployable resources and the firm's profitability. Following the procedures in previous studies (Fan, et al, 2008), I employed the Heckman two-staged model that corrects for endogeneity in regression analysis as below:

For testing Hypothesis 1:

$$\textit{Increase in Unrelated Diversification Dummy}_t = \alpha_{10} + \textit{Exogeneous Controls}_t + \textit{Other Controls}_t + \varepsilon_{11} \quad (1)$$

$$\textit{Net inflow of Redeployable Resources}_t = \alpha_{20} + \beta_{21}\ \Delta\textit{Unrelated Diversification}_{t-1} + \textit{Inverse Mills Ratio (IMR)} + \gamma_{22}\ \textit{Other Independent Variables}_t + \textit{Controls}_t + \varepsilon_{21} \quad (2)$$

For testing Hypothesis 2 and 3:

$$\textit{Unrelated Diversification Dummy}_t = \alpha'_{10} + \textit{Exogeneous Controls}_t + \textit{Other Controls}_t + \varepsilon'_{11} \quad (1)$$

$$\textit{Firm Profitability}_{t+1} = \alpha'_{20} + \beta'_{21}\textit{Unrelated Diversification}_t + \textit{Inverse Mills Ratio (IMR)} +$$

γ'_{22} *Other Independent Variables* $_t$ + *Controls*$_t$ + ε'_{21} *(2)*

I first estimated a bivariate probit regression (equation 1) of an indicator variable for increase in unrelated diversification on a set of exogenous explanatory variables, including asset structure (current asset divided by current liability), account receivable (account receivable to total assets), inventory (inventory to total assets) and other control variables, including firm size, leverage, age, year dummies and industry dummies. Here, the indicator variable for increase in unrelated diversification is dichotomous, rather than continuous. I then included the resulting inverse mills ratio as an additional explanatory variable, alongside unrelated diversification change, in my second stage random-effects General-Least-Square (GLS) regression (equation 2).

The analytical approach estimates change in strategy (Johnston and DiNardo, 1997), and has been widely used in the empirical literature on strategy, structure and performance (e.g., Geletkanycz and Hambrick, 1997; Haveman, 1993; Zajac and Westphal, 1994; Westphal and Fredrickson, 2001). The primary models for Hypothesis 1 estimate change in unrelated diversification in year t-1 on net inflow of resources in year t. The primary models for Hypothesis 2 and 3 estimate unrelated diversification in year t on firm profitability in year t+1. This lag structure has been shown to be long enough to capture change in firms with more protracted decision-making processes, but also short enough to reflect the influence of managers and directors at time t (Wiersema and Bantel, 1992; Westphal and Fredrickson, 2001).

I also fit the fix-effects GLS regression and obtained similar results as the random-effects estimation. This procedure, in theory, provides a clearer estimate of the effect of unrelated diversification change on transfer of redeployable resources and economic performance of group-affiliated firms. My specification also included firm fixed effects, controlling which allows me to control for unobserved heterogeneity, as long as this is constant over time. Thus,

my findings are not affected by cross-sectional differences in organizational structure or reporting, as long as these firm characteristics are stable over time.

3.6 Results

Table 3.4 shows descriptive statistics (Panel A) and a correlation matrix (Panel B) for the variables in all models. The correlation matrix suggests that the collinearity among the variables is low. The correlation between the two measures of unrelated diversification, the entropy measure and the number of operating industry groups, is 0.76 (p-value<0.01). Table 3.5 reports net inflow of redeployable resources from group across affiliated firms with different level of change in unrelated diversification in time t-1. I computed the mean of net inflow of redeployable resource for each individual category of affiliated firms and found that affiliated firms with an increase in unrelated diversification in time t-1 are associated with more net inflow of redeployable resources in time t. This is consistent with my hypothesis 1.

Table 3.6 and Table 3.7 present the results of regression models explaining net inflow of redeployable resources. Each table uses a different measure of unrelated diversification (entropy measure or number of operating industry groups). Panel A in both tables reports the first stage Heckman correction model explaining the binary decision of increase of unrelated diversification. Panel B reports the second stage GLS estimation explaining the net inflow of redeployable resources. In Panel B of Table 3.6, the coefficient on the change of entropy measure in the previous year is 0.018 (Z-value=4.22), indicating that 1% increase of unrelated diversification in a group-affiliated firm increases the net inflow of redeployable resources by 1.8%, *ceteris paribus*. In Panel B of Table 3.7, the coefficient on addition of industry groups is 0.006 (Z-value=2.60), indicating that adding in one more industry group in time t-1 is associated with 0.6%

increase of net inflow of redeployable resources. Both results support the primary prediction of the power-seeking hypothesis.

State control shows a significant positive effect in Panel B of Table 3.6, indicating that firms affiliated with state-controlled business groups receive more net inflow of redeployable resources. This may be because that, in China, state-owned business groups receive more government support such as favorite conditions, monopolistic positions, or strategic resources including capital and business licenses (e.g. Nolan, 2001) and therefore there are more resources to transfer from the group level to the affiliated firm level in state-owned business groups. An alternative explaination could be that state-owned business groups tend to transfer resources to their listed affiliated companies while private-owned business groups tend to transfer away resources from their listed affiliated companies. This is the so-called "principle-principle" agency issues. The coefficient on prior firm performance, in Panel B of Table 3.7, is -0.036 (Z-value=-2.56), consistent with my prediction that relatively well-performed group-affiliated firms are associated with lower level of net inflow of redeployable resources, or higher level of outflow of redeployable resources. The coefficient on group shareholding, in Panel B of Table 3.7, is 0.009 (p-value=1.74), indicating firms with larger group shareholding is associated with higher level of net inflow of redeployable resources. Other firm-specific covariates, including age, size or leverage, appear to have no influence on the net inflow of redeployable resources.

Table 3.8 and Table 3.9 report the Heckman models explaining the diversification-performance relationship with two different unrelated diversification measures respectively. Panel A in both tables reports the first stage Heckman correction models explaining the binary decision of unrelated diversification. Panel B in both tables reports the second stage GLS estimation explaining the diversification-performance relationship. The results are generally

consistent across both tables and largely support my predictions. I estimated four versions of the second stage models. Model 1 shows the effects of the various covariates included as controls. This model served as a baseline from which the analysis proceeded. In model 2, I included unrelated diversification to assess its possible effects on firm profitability, together with the inverse mill ratio produced in the first stage of Heckman correction models. Unrelated diversification shows a significant negative impact on the performance of group-affiliated firms, when it is measured by number of operating industry groups (Table 3.9). Model 3 further included the direct effects for the two forms of redeployable resources on firm profitability. Acquiring intangible assets from the group in general shows a negative coefficient, while more net inflow of financial assets shows a positive and significant coefficient (β=0.003, p<0.01).

The most important results are those in Model 4 concerning the moderating effects of net inflow of the two types of redeployable resources on diversification performance. The model in both Table 3.8 and Table 3.9 shows a significant positive effect of the interaction of acquired intangible assets and unrelated diversification on performance. This supports hypothesis 2, which predicts a positive relationship between acquired intangible resources from business groups and the performance of unrelated diversification. Model 4 also shows a significant negative effect of net inflow of financial assets from business groups on the performance of unrelated diversification. Hypothesis 3 predicts a negative impact of market available redeployable resources on the performance of unrelated diversification strategy. Thus, hypothesis 3 is supported.

The results for the control variables are logical. Higher shareholding held by the business groups shows a positive relationship with the firms' profitability. As the existing studies suggest, concentrated shareholders can act as monitors to the management of the firms. Firm size has a

positive effect on its profitability. Highly levered firms perform poorer. Firm age shows a marginal significant positive effect on firm performance. Companies affiliated with state-owned groups perform significantly poorer compared to those affiliated with other ownership types.

To better understand the results, I plot ROA by unrelated diversification based on Model 4 in Table 3.8 Panel B (see Figure 3.2). The left graph in Figure 3.2 shows that, in firms acquiring less intangible assets from the groups, the profitability is slightly decreasing along unrelated diversification. In contrast, in firms that acquire more intangible assets from the groups, the profitability of unrelated diversification shows an increasing trend. The right graph indicates that firms with more net inflow of financial resources from the groups show a decreasing performance along unrelated diversification. In comparison, the profitability in firms acquiring less financial resources is increasing when they diversify further. Thus, the patterns demonstrated in the two graphs are consistent with my hypotheses.

3.7 Robustness Check

I employ Granger causality test to check the causal relationships between more net inflow of redeployable resources and unrelated diversification. This is to test the robustness of my power-seeking hypothesis concerning that group-affiliated firms adopt unrelated diversify strategy to protect and compete for more redeployable resources, not that more redeployable resources transferred from business groups induce higher diversification. The granger causality test consists of equation (3) and (4) regarding the casual and reverse causal relationship of the two variables, respectively.

$$Net\ Inflow\ of\ Redeployable\ Resources_t = \alpha_{10} + \beta_{11} \Delta Unrelated\ Diversification_{t-1} + Controls_t + \varepsilon_{11} \quad (3)$$

$$\Delta Unrelated\ \ Diversification_t = = \alpha_{20} + \beta_{21} Net\ \ Inflow\ \ of\ \ Redeployable\ \ Resources_{t-1} + Controls_t + \varepsilon_{21} \qquad (4)$$

I observe that the addition of diversification change in time t-1 in equation (3) shows a significant positive effect on the subsequent net inflow of redeployable resources. However, in equation (4), the net inflow of redeployable resources at time t-1 does not show a significant effect on the subsequent change in diversification. This result confirms my hypothesis.

3.8 Summary

By studying unrelated diversification strategies in group-affiliated firms, this study highlights the information asymmetry and interest divergence problem in a business group. The overall message is that managers in group-affiliated firms adopt unrelated diversification strategy in order to protect or compete for more redeployable resources. Acquiring market unavailable resources has conferred competitive advantage to group-affiliated firms and facilitates the diversification moves. In contrast, more market available resources may strengthen the agency issues in group-affiliated firms and lead to imprudent investments with lower subsequent returns. This study naturally raises a question: How do business groups control such information asymmetry and interest divergence problem in order to improve the group efficiency? To answer this question, it is important to investigate the corporate governance system that would guard against ill-conceived diversification moves. In the next Chapter, I will look into the main control mechanism, the board of directors of group-affiliated firms, and make an effort to provide an explanation to this question.

Table 3.4 Descriptive Statistics and Correlation Matrix for Variables Used

Panel A. Descriptive statistics

	Variable	Mean	Std. Dev.	Min	Max
1	ROA	0.020	0.074	-0.983	0.457
2	Unrelated Diversification (Entropy)	0.404	0.410	0.000	1.927
3	Unrelated Diversification (Number of Operating Industry Groups)	2.457	1.451	1.000	8.000
4	Intangible Assets Acquired from the Group	0.004	0.031	0.000	0.817
5	Net inflow of Financial Resources from the Group	0.072	0.884	-33.306	4.680
6	Group Shareholding (%)	42.674	17.122	5.780	85.000
7	Firm Size (sales in millions)	779	1220	0.100	9080
8	Firm Leverage (d/e)	1.140	1.016	0.052	9.936
9	Firm Age	12.142	9.571	3.000	149.000
10	State Control (Dummy)	0.856	0.351	0.000	1.000
11	Account Receivables	0.088	0.081	0.000	0.831
12	Asset Structure	1.503	1.067	0.008	9.627
13	Inventory Ratio	0.152	0.135	0.000	0.881
14	Business Group Affiliation	0.706	0.455	0.000	1.000

Panel B. Correlation

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	ROA	1												
2	Unrelated Diversification (Entropy)	-0.03	1											
3	Unrelated Diversification (Number of Operating Industry Groups)	-0.01	0.76	1										
4	Intangible Assets Acquired from the Group	0.00	0.02	0.02	1									
5	Net inflow of Financial Resources from the Group	0.01	0.01	0.01	-0.01	1								
6	Group Shareholding (%)	0.09	-0.14	-0.09	0.03	0.03	1							
7	Firm Size (sales in millions)	0.06	-0.09	-0.01	-0.01	0.01	0.20	1						
8	Firm Leverage (d/e)	-0.03	-0.02	0.00	0.01	-0.01	-0.04	0.00	1					
9	Firm Age	-0.04	0.02	-0.02	-0.01	-0.02	-0.19	0.03	0.02	1				
10	State Control (Dummy)	0.02	-0.06	-0.05	0.03	0.03	0.21	0.06	0.01	-0.06	1			
11	Account Receivables	-0.03	-0.05	-0.04	0.01	0.00	0.02	-0.03	-0.01	-0.07	-0.06	1		
12	Asset Structure	0.05	-0.07	-0.07	-0.01	-0.01	0.02	-0.04	-0.05	-0.04	-0.01	-0.01	1	
13	Inventory Ratio	-0.01	0.02	0.04	0.00	0.02	-0.04	0.01	0.01	0.02	-0.01	-0.03	-0.01	1
14	Business Group Affiliation	0.07	-0.06	-0.06	0.07	0.04	0.28	0.13	0.00	-0.05	0.18	0.06	0.02	0.07

Table 3.5 Net Inflow of Redeployable Resource from Group across Affiliates with Different Level of Diversification Change

	Less diversified$_{t-1}$	Same diversified$_{t-1}$	More diversified$_{t-1}$	Difference
N	1932	927	2032	
Mean	-0.027	-0.004	0.014	0.018**

Note: **p value<0.05

Table 3.6 Unrelated Diversification for Net Inflow of Redeployable Resource: Heckman Two-Staged Correction Models

Panel A: First Stage Probit Regression Explaining Indicator Variable of Unrelated Diversification Change

	Coefficients	**Z value**
Account Receivables	-0.025	-0.07
Asset Structure	-0.028*	-1.68
Inventory Ratio	-0.421**	-1.98
Industry dummies	Included	
Year dummies	Included	
Number of Observations	2383	
Number of Firms	790	
Log likelihood	-2204.5	

Panel B: Second Stage GLS Regression of Net Inflow of Redeployable Resources on Unrelated Diversification

	Coefficients	**Z value**
Change of Unrelated Diversification$_{t-1}$	**0.018*****	**4.22**
Inverse Mills ratio for diversification (IMR)	-0.054**	-2.05
Controls		
Profitability$_{t-1}$	-0.018	-0.82
Group Shareholding	-0.006	-0.93
Firm Size	0.001	0.44
Firm Leverage	-0.001	-0.06
Firm Age	0.002	0.70
State Control	0.005**	1.23
Industry dummies	Included	
Year dummies	Included	
Number of Observations	2383	
Number of Firms	790	

Note: The dependent variable is the net inflow of redeployable resources at time t.
***p<0.01
**p value<0.05
*p value<0.1

Table 3.7 Unrelated Diversification for More Redeployable Resource: Heckman Two-Staged Correction Models

Panel A: First Stage Probit Regression Explaining Addition of Industry Groups Indicator Variable

	Coefficients	**Z value**
Account Receivables	-0.489	-1.50
Asset Structure	-0.026	-1.57
Inventory Ratio	-0.208	-1.04
Industry dummies	Included	
Year dummies	Included	
Number of Observations	2383	
Number of Firms	790	
Log likelihood	-1775.9	

Panel B: Second Stage GLS regression of Net Inflow of Redeployable Resources on Addition of Industry Groups

	Coefficients	**Z value**
Addition of Industry Groups$_{t-1}$	**0.006*****	**2.60**
Inverse Mills ratio for diversification (IMR)	-0.121***	-5.05
Controls		
Profitability$_{t-1}$	-0.036**	-2.56
Group Shareholding	0.009	1.56
Firm Size	0.001	0.28
Firm Leverage	0.001	0.23
Firm Age	0.003	1.74
State Control	0.005	1.30
Industry dummies	Included	
Year dummies	Included	
Number of Observations	2383	
Number of Firms	790	

Note: The dependent variable is the net inflow of redeployable resources at time t.
***p<0.01
**p value<0.05
*p value<0.1

Table 3.8 Resource Inflow and the Performance (ROA) of Unrelated Diversification (Entropy Measure): Heckman Two-Staged Correction Models

Panel A: First Stage Probit Regression Explaining Indicator Variable of Unrelated Diversification

	Coefficients	**Z value**
Account Receivables	0.587	0.90
Asset Structure	-0.092***	-3.31
Inventory Ratio	-0.211	-0.51
Industry dummies	Included	
Year dummies	Included	
Number of Observations		2383
Number of Firms		
790		
Log likelihood		-1656.9

Panel B: Second Stage GLS Regression of Firm Profitability on Unrelated Diversification (Entropy Measure)

	Model 1	**Model 2**	**Model 3**	**Model 4**
Unrelated Diversification (Entropy)		0.001 (0.75)	-0.001 (-0.86)	0.004 (0.51)
Inverse Mills ratio for diversification (IMR)		0.044*** (13.75)	0.041*** (11.70)	0.051*** (13.70)
Intangible Assets Acquired from the Group			-0.008 (-0.69)	-0.027** (-2.10)
Net inflow of Financial Resources from the Group			0.003*** (5.06)	0.007*** (4.31)
Interactions				
Unrelated Diversification× Intangible Assets Acquired from the Group				**0.031** **(2.48)**
Unrelated Diversification× Net inflow of Financial Resources from the Group				**-0.006** **(-2.49)**
Controls				
Group Shareholding	0.061*** (26.25)	0.067*** (30.31)	0.063*** (26.30)	0.065*** (30.13)
Firm Size	0.013*** (28.82)	0.013*** (31.61)	0.013*** (29.83)	0.013*** (27.90)
Firm Leverage	-0.019*** (-22.34)	-0.017*** (-19.34)	-0.016*** (-17.59)	-0.015*** (-17.27)
Firm Age	0.001 (0.92)	0.002** (3.36)	0.001** (2.00)	-0.001 (0.47)
State Control	-0.010*** (-7.02)	-0.009*** (-6.94)	-0.008*** (-6.54)	-0.008*** (-6.51)
Industry Dummies	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included
Observations	2383	2383	2383	2383
No. of Firms	790	790	790	790

Note: The dependent variable is firm performance measured as ROA in the next year. Z-statistics are reported in the paraphrase.
***p<0.01
**p value<0.05
*p value<0.1

Table 3.9 Resource Inflow and the Performance (ROA) of Unrelated Diversification (Number of Operating Industry Groups): Heckman Two-Staged Correction Models

Panel A: First Stage Probit Regression Explaining Indicator Variable of Unrelated Diversification (No. of Operating Industry Groups):

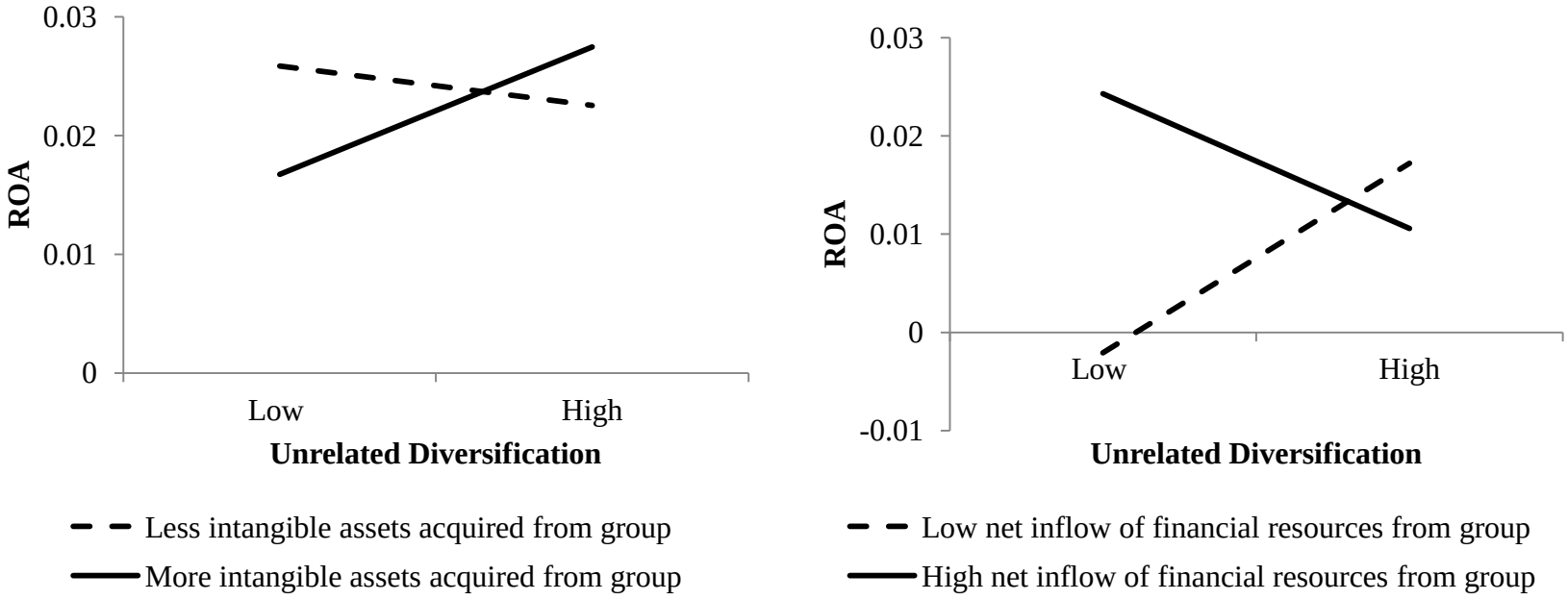
	Coefficients	**Z value**
Account Receivables	0.587	0.90
Asset Structure	-0.092***	-3.31
Inventory Ratio	-0.211	-0.51
Industry dummies	Included	
Year dummies	Included	
Number of Observations	2838	
Number of Firms	790	
Log likelihood	-1656.9	

Panel B: Second Stage GLS Regression of Firm Profitability on Unrelated Diversification (No. of Operating Industry Groups):

	Model 1	Model 2	Model 3	Model 4
No. of Operating Industry Groups		-0.001*** (-3.98)	-0.001*** (-4.45)	-0.001*** (-4.64)
Inverse Mills ratio for diversification (IMR)		0.033*** (7.69)	0.033*** (7.20)	0.034*** (7.08)
Intangible Assets Acquired from the Group			-0.005 (-0.42)	-0.043*** (-3.01)
Net inflow of Financial Resources from the Group			0.003*** (6.67)	0.003** (1.99)
Interactions				
No. of Operating Industry Groups× Intangible Assets Acquired from Group				**0.013** ** **(2.51)**
No. of Operating Industry Groups× Net inflow of Financial Resources from the Group				**-0.001** * **(-1.86)**
Controls				
Group Shareholding	0.061*** (26.25)	0.069*** (38.23)	0.066*** (31.23)	0.067*** (32.90)
Firm Size	0.013*** (28.82)	0.011*** (26.77)	0.012*** (27.58)	0.011*** (26.42)
Firm Leverage	-0.019*** (-22.34)	-0.017*** (-31.46)	-0.018*** (-29.79)	-0.018*** (-29.85)
Firm Age	0.001 (0.92)	0.001 (1.44)	0.002*** (2.64)	0.001* (1.83)
State Control	-0.010*** (-7.02)	-0.010*** (-7.93)	-0.009*** (-8.69)	-0.009*** (-8.63)
Industry Dummies	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included
Observations	2383	2383	2383	2383
No. of Firms	790	790	790	790

Note: The dependent variable is firm performance measured as ROA in the next year. Z-statistics are reported in the paraphrase.
***p<0.01
**p value<0.05
*p value<0.1

Figure 3.2 The Interaction Effect of Resource Flow on the Performance of Unrelated Diversification



CHAPTER 4 CONTROL ROLE OR RESOURCE ROLE? THE CONTINGENT ROLE OF GROUP-DISPATCHED EXECUTIVE DIRECTORS IN UNRELATED DIVERSIFICATION

4.1 Introduction

In the previous chapter, I find empirical evidence that management of group-affiliated firms adopts unrelated diversification, in order to (1) prohibit the growth-induced slack resources from being shared with other group-affiliated firms; and (2) compete for a larger share of slack resources accumulated at the group level. In this way, group-affiliated firms manage to obtain more net-inflow of redeployable resources from business groups. The arguments highlight the information asymmetry and divergent interests between the business group and the affiliated firms surrounding diversification strategy at the affiliated firm level. These findings naturally lead to a research question of interest: how do group headquarters control such information asymmetry and interest divergence problems?

Previous studies on business groups suggest that ties that link group-affiliated firms together are of two main sorts: one is the economic resource or transaction dependencies (either financial or commercial); the other is the governance or control relations that overlay those dependencies including the equity ties and director ties (Lincoln and Gerlach, 2004). In particular, business groups, often as controlling shareholders of their affiliated firms, can strengthen their control by dispatching their current or previous executives to sit on the boards of their affiliated firms. These group-dispatched directors should serve as directors to make decisions in favor of the groups instead of affiliated firms, and as supervisors to assure the management at the

affiliated firms not to question those decisions (Yeh & Woidtke, 2005). They may improve communication, allowing information about group strategies, firm operations, market opportunities, innovative strategies etc to pass among firms in the group (Keister, 2009). However, I argue that there is more to understand the governance role of group-dispatched directors by also observing their relations with the affiliated firms.

I assert that, like other directors, group-dispatched directors can be executive directors or non-executive directors. While the control role of group-dispatched non-executive directors is obvious, the role of group-dispatched executive directors is less clear and invites further research. This is because, as executive directors, they are also tied with the affiliated firms in various aspects and their interests may gradually align better with that of the affiliated firms, rather than with that of the groups. Therefore, their presence could play another type of role, helping the affiliated firms under management in obtaining resources and pursuing investments that benefit themselves more directly with their contacts and influence in the group, or the "resource role". In this study, I take a different approach, endeavoring to propose a contingent framework to understand what factors affect the control role or resource role of group-dispatched executive directors and how these factors shape investment decisions in group-affiliated firms.

To theoretically ground my investigation of the control or resource role of group-dispatched executive directors, I draw upon identity theory (Mead, 1934; Stryker, 1968; Burke and Reitzes, 1981; Callero, 1985; Stryker and Burke, 2000) and social identity theory (Tajfel, 1978, 1981; Tajfel and Turner, 1985; Turner, 1975,

1982, 1984, 1985). Identity is defined as the shared social meanings that persons attribute to themselves in a role (Burke and Reitzes, 1991). Central propositions of identity theory states that one categorizes oneself as an occupant of a role, or the "identity", and performs according to the meanings and expectations associated with that role (Buke and Tully 1977; Thoits, 1986). The identity theorists make clear that "these expectations and meanings form a set of standards that guide behaviors" (Burke, 1991; Burke and Reitzes, 1981). Social identity theory provides a similar view while focusing on the norms and expectations of a social category and linking them to behaviors (Hogg et al., 1995; Ashforth and Mael, 1996). Both theories recognize that the self is made up of multiple identities, such as directors and executives, and these identities can conflict with one another and, therefore, must be "managed" (cf. Ashforth & Mael, 1989; Hoelter, 1983; McCall & Simmons, 1978; Thoits, 1983, 1986). Otherwise, the identity conflict can have adverse consequences for the performance of the person as well as the business (e.g. Beckhard and Dyer, 1983). One can manage the conflict by ordering, separating, realigning the expectations, priorities of identities (Adler and Adler, 1987; Ashforth and Mael, 1989) or balancing various identities in their role system, engaging fully in one role or another, depending on circumstances, rather than emphasizing one salient identity across all situations (Marks & MacDermid, 1996). Identity salience is the relative importance or centrality of a given identity for defining oneself (Hoelter, 1983). An identity is salient in particular to a situation and one develops the meaning of an identity through the responses of others (Stryker, 1968; Burke & Reitzes, 1981).

Recent research on board effectiveness investigates how directors' multiple identities affect board monitoring and resource provision (Hillman, Nicholson, & Shropshire, 2008), but this research does not consider the conflicts of multiple identities (except the study of Golden-Biddle and Rao, 1997) and qualitative in method. In this study, I investigate the role of group-dispatched executive directors facing a situation when both their group-affiliation identity and executive identity are relevant: assessing a protective investment through unrelated diversification. Utilizing the mechanisms and logic of identity theory and social identity theory, I identify tenure, firm performance and business tie with the group as especially relevant factors to determine salience of a specific identity. More specifically, firstly, I suggest that longer tenure that a group-dispatched executive director serves in an affiliated firm strengthens her commitment with the affiliated firm, making her executive identity more salient. Secondly, better performance of group-affiliated firms, reflecting the executive role performance and satisfaction of the role expectations, will also help her executive identity become more salient. Lastly, the more an affiliated firm is embedded in the business network of its group, the more salient the identity as a group-dispatched director is.

Extending the literature on corporate governance by integrating identity theory and social identity theory, this study provides several contributions to the management literature. Firstly, it contributes to the board literature by explaining how the salience of multiple identities affects the role of group-dispatched executive directors. This effort is a response to the calls for more in-depth examination of both directors as individuals and the antecedents of board effectiveness (Finkelstein, and

Hambrick, 1996; Hillman et al., 2008). Secondly, this study adds to the literature on board of directors by investigating the role of board of directors in strategic interference in firms with controlling group shareholders. Recent research suggests that a firm's board of directors affects its strategies (see Pugliese et al., 2009 for a review). Focused on large firms with disperse ownership, this work classified the directors based on their independence from management (Hillman et al., 2000). In firms with concentrated ownership, the research on boards needs to consider the relation with and influence of the controlling shareholders (Yeh & Woidtke, 2005).

4.2 Identity Theory and Multiple Identities

Outside of agency theory, several streams of research on governance recently emerged, taking a social psychology perspective to understand the behavior aspects of board of director (e.g., Golden-Biddle and Rao, 1997; Westphal, 1998; Westphal and Fredrickson, 2001; Hillman et al., 2008; Finkelstein *et al*., 2009; Tuggle, et al., 2010). For example, a series of studies by Westphal and colleagues demonstrate how social processes such as ingratiatory behavior (Westphal, 1998; Westphal and Stern, 2006), demographic similarity (Westphal and Zajac, 1995), social distancing (Westphal and Khanna, 2003), pluralistic ignorance (Westphal and Bednar, 2005) and director experiences (McDonald et al., 2008) and external network ties (Carpenter and Westphal, 2001) influence board behaviors. These studies underscore the importance of how context affects the behaviors of directors.

Identity theory (Mead, 1934; Stryker, 1968; Burke and Reitzes, 1981; Callero, 1985; Stryker and Burke, 2000) assumes that the self is made up of multiple identities and an individual structures the multiple identities into a salience hierarchy wherein

some identities are more central or important. For example, for one person the occupational identity may be the dominant aspect of the self, taking precedence over other identities and affecting general self-perceptions and actions (Callero, 1985). Identity salience is the relative importance or centrality of a given identity for defining oneself. The social actors perform according to the meanings and expectations associated with salient role identity (Buke and Tully 1977; Thoits, 1986). Therefore, the values, norms, and goals that are normative in a salient identity will implicitly or explicitly shape much of the individual's behavior (Burke, 1991; Burke and Reitzes, 1981). Similarly, social identity theory views the self as composed of multiple identities, but it links the norms and stereotypes of social categories, instead of roles, to behaviors (Hogg, 1992). Social identity theory also predicts that individuals will tempt to align their actions with the normative behaviors of a social identity, depending on the salience of that identity (Hogg et al., 1995; Ashforth and Mael, 1996). A salient identity with a business group, for example, may encourage one to pursue group goals ahead of goals of the affiliated firm, to interpret issues from a group perspective, to cooperate with other group members despite their different and possible conflicting interests (Ashforth and Mael, 1996, Dutton et al., 1994; Pratt, 1998). The hierarchy of salience is important in predicting behavior in the situation when different identities are activated or pertinent. Concurrently activated, different identities do not necessarily demand conflicting behaviors. However, sometimes they do, and it is under this circumstance that the hierarchy of salience becomes a particularly important predictor of behavior.

The literature on identity theory suggests two important mechanisms determine the salinence of an identity. Firstly, "commitment" determines the salience of an identity. Stryker (1968) defines commitment as the degree to which one's relationships to specific others depend on one's being a particular kind of person. Commitment actually is a function of social relations (Stryker and Serpe, 1982, 1994), both quantitatively and qualitatively. It has two dimensions with the first refers to the number of relationship one enters through an identity. The more relationship one is tied to by holding an identity (i.e. the greater the embeddedness of the identity in the social structure), the more likely it is that the identity will be activated in a situation. The second dimension is qualitative—the depth of the relationships entered due to an identity. Stronger ties to others through an identity lead to a more salient identity. In a similar vein, social identity theorists also suggest that interpersonal interaction, similarity, shared goals, and so forth may affect the salience of the group identity (Hogg and Turner, 1985; Turner, 1984). Identities are social products that are formed through social processes (Stryker, 1968; De Federico de la Rúa, 2007). Once formed, it is maintained by social relations. Therefore, it is necessary to understand the networks of social relations in which individuals are embedded because this relational context shapes one's identification and strategies (De Federico de la Rúa, 2007).

Secondly, identity salience is determined by role evaluation. Role evaluation is how one performs within and evaluates the roles underlying self-structure. Role evaluation implicate identity salience because of the self-enhancement motive (we have a need to think well of ourselves) and because self evaluation is often based on perceptions of others' appraisals and social comparisons. The meanings and

expectations and assessment of others are seen as critical in shaping one's behaviors in the role (Burke & Reitzes, 1981). Eventually the sources of pressure or encouragement to commit oneself to a particular identity, expressed in a consistent line of action, may be internalized (Burke & Reitzes, 1981). The logic of identity theory suggests that, for example, an executive's commitment to this role is a function of the salience of the executive role to her sense of self, the satisfaction that the executive role provides, and the perceived assessment of her performance in the executive role by the significant others.

Lastly, concerning a social identity with a group, social identity theory literature suggests several other factors of organizations which most likely to increase the salience of a social identity with an organization: distinctiveness of the group's values and practices (Oakes and Turner, 1986), prestige of the group (Chartman Bell, and Staw, 1986; March and Simon, 1958) and the salience of the out-groups (Allen et al., 1983). For example, individuals tend to have a salient group identity when the group is more prestigious because it improves self-esteem (Mael, 1988).

In sum, the identity theory states that there may exist multiple and potentially conflicting identities within a self, and these identities are hierarchically ordered in terms of their salience. In addition, this hierarchy of identity salience is particularly important in predicting behavior when different identities are concurrently invoked and call for incompatible behaviors. Commitment, in the forms of quantity and quality of relationships that relate to an identity, determines the salience of an identity. Because identity is reflexive, its salience is also determined by the role evaluation or performance. When it comes to the salience of a social identity, other factors like

distinctiveness of group value, prestige of the group and the salience of out-groups also affect the salience of an identity.

4.3 Identity Salience of Group-dispatched Executive Directors and Unrelated Diversification

Central to understanding the implications of role-identity conflict on group-dispatched executive directors is understanding the behavioral expectations associated with the identity as group-dispatched directors and that with the identity as executives of affiliated firms. Group-dispatched directors refer to those directors, who either used to work for the business group, or are currently assuming positions in the business group. Their presence recognizes the interdependence between the firms and the group owners. They provide (1) access to group level resources; (2) information channels with the group; (3) access to group decision makers that may result in influence over group level decisions related to the affiliates; and (4) legitimacy (Galaskiewica & Wasserman, 1989). The access to group level resources enables group affiliates to diversify into new markets. Board ties can also reduce informational asymmetries by facilitating the flow of information among firms (Haunschild, 1993). The ties enable directors to acquire firsthand knowledge about the affiliated firm's capabilities, activities, and plans through their communications with the top management and their involvement in the decision-making process (Gulati and Westphal, 1999).

Since the control role of group-dispatched non-executive directors are relatively obvious, this study focuses on group-dispatched executive directors. On one hand, these directors, with their group ties, may be expected by a controlling group as a better information channel and control mechanism of its affiliated firms. The

business group ties attenuate the directors' fear of confronting the top management because the directors have relationship in the group headquarter, which has the decision power on appointment and removal of the top management of the affiliated firm. They fear less of retaliation from treating the CEO harshly (e.g. Baysinger & Hoskisson, 1990; Kesner & Dalton, 1986) because they either hold positions in the group headquarter or can be reassigned to another affiliated firm. In addition, their promotion within the business group may be linked to their performance as a dispatched director. This also provides the directors incentives to serve the group's interest.

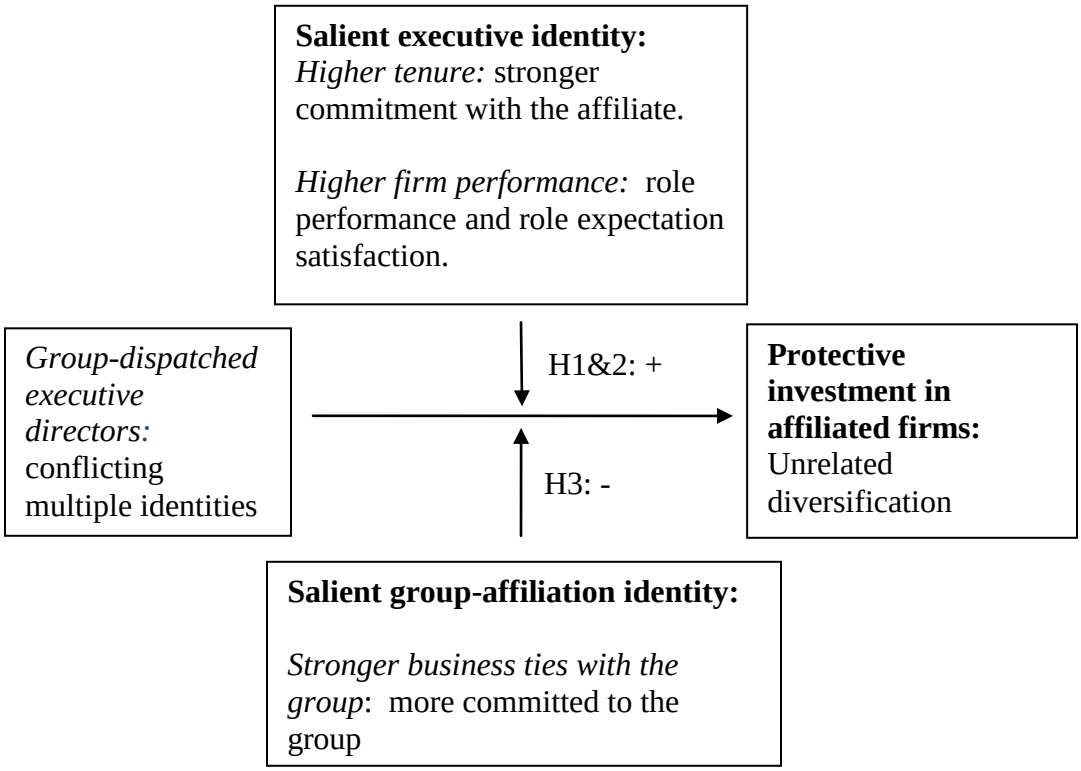
On the other hand, as executives of affiliated firms, executive directors may also be expected to safeguard the interest of affiliated firms. Firstly, executive directors as agents desire less sharing of profits with other member firms because it represents forgone wealth (e.g. according to the equity they own). Low profitability of the firm will also jeopardize the executive director's employment future, either in internal promotion of the business group or external job market. To an extreme, a delisted firm (e.g. with consecutive negative ROEs) will be unwanted to these executive directors because they are likely to face unemployment. Secondly, working as the top management in an affiliated firm may give these directors a sense of "psychological ownership" towards the firm that motivates loyalty and commitment to it (Pierce et al, 2001; Cardon, et al., 2005). Such psychological ownership emerges through controlling the firm, coming to intimately know the firm and various stakeholders, and investing their time, idea, skills, and energies into the firm. If the business group wants to divert profits away from the affiliated firm, or subsidize other

money-losing affiliated firms using growth-induced resources in the affiliated firm, executive directors are expected to support protective investment decisions, influencing the group headquarter in the group level boards or seeking help from their network in groups to protect the affiliated firm's interest.

The identities as a group-affiliated director and as the executive of an affiliated firm can mutually reinforcing; however, this context can also result in conflicting role expectations. The existing literature studying how these directors on a board may influence an affiliated firm thus far has concerned mostly situations that one of their identities is more salient, or both identities predict similar behaviors. In this study, I focus on the protective investment through unrelated diversification as a circumstance that may trigger conflict between the group-dispatched director and executive identities. In approving such strategic decisions, group-dispatched executive directors face situations in which both their group-affiliated director and executive identity are pertinent. Accessing protective diversification strategy represents such a circumstance because in order to evaluate such strategic initiatives, board need to have detailed understanding of the underlying operation motive, and how new and existing businesses would complement one another (Farjoun, 1994; Sirower, 1997). As executives, who are part of the decision-making process, executive directors are more likely to gain accurate information about the top management and the firm's operations (Baysinger & Hoskisson, 1990). In comparison, non-executive directors are less capable in discriminating between a strategy that is driven by value-enhancing motives and that which is driven by the private benefits. Therefore, non-executive directors often lack the type of information

needed to be truly effective in controlling decisions (Baysinger & Hoskisson, 1990). In protective diversification context, the executive identity demands preservation of the true motive of the investment decision and even help the initiative through influencing the group headquarter with their contacts in the group, while the group-affiliated director identity calls for revealing firm-specific information about the strategic decision. This circumstance represents a source of potential conflict under which the hierarchy of identity salience becomes potentially an important predictor of behavior. In the following section, I will propose a framework to investigate when one of the identities is more likely to be more salient. The theoretical framework is summarized in Figure 4.1.

Figure 4.1 The Theoretical Framework of Chapter 4



4.4 The Salience of Executive Identity

Two factors may determine the relative salience of the executive identity of a group-dispatched executive director: tenure and performance at the affiliated firm under his management. Research in social psychology suggests that, firstly, tenure in an organization is likely to increase both the quantitative and qualitative aspects of the person's commitment to the current role. With longer tenure, executives directors gradually develop working relationships with other members of their top management teams, other directors, and powerful outside stakeholders (Vancil, 1987; Van Knippenberg and van Schie, 2000). They most frequently interact with other members in the affiliated firm and may form allies in strategic positions over time that will support them in critical decisions. In this way, longer tenure increases the

executive directors' centrality in the communication network in the affiliated firm (Barkema and Pennings, 1998). Secondly, over time, executive directors may develop shared belief systems (Katz, 1982) and tend to perceive that they have more in common with the people working in the same organization. Thirdly, the people with whom an executive director works closely on daily basis may form a peer subculture that emphasizes the interest of the affiliated firm while devaluing the interest of the group at large. This peer subculture will also affect the structure of identity salience perceived by the executive directors. Such close relationships, shared belief system, perceived similarity, and peer subculture are psychologically valued and linking such relationships and belief to an identity should make that identity more highly valued and therefore more salient (Nuttbrock and Freudiger, 1991). Accordingly, the relative influence of an individual director's executive identity may be weighted by his tenure served in the affiliated firm: specifically, group-dispatched executive directors are more likely to support protective investment decisions at the affiliated firm if they have served long tenure at this firm. This leads to the following hypothesis:

> **Hypothesis 1***: Group-dispatched executive directors on a board will be associated with higher level of unrelated diversification strategy in an affiliated firm when their relative organizational tenure is high.*

In addition to the commitment proxied by director's tenure, the salience of the executive identity and its effect on protective diversification strategy also depend on another factor: the affiliated firm's performance. Identity theorists have suggested that the identity salience depends on how one performs within and evaluates the role underlying self-structure (Hoelter, 1983). This self-evaluation can be driven by self-esteem motive (Stets and Burke, 2000): as a group-dispatched executive director had

a salient executive role identity, the evaluation of his or her performance as an executive would influence feelings of self-esteem. If his or her role as an executive was evaluated positively, the director's self-esteem would be higher (Hoelter, 1983); if the director performed well in the role of executive, he or she would feel good, given the appraisals by others and their approval (Franks and Marolla, 1976). The self-efficacy mechanism could serve as another explanation: a group-dispatched executive director who performed well in her executive role gained a sense of control over the environment (Franks and Marolla, 1976; Gecas and Schwalbe, 1983). Thus, theory and research on identity would suggest that group-dispatched executive directors are likely to weight more their executive identity in the affiliated firms when the affiliated firms under their management perform relatively well. Thus, the group-dispatched executive directors may be most likely to advocate the protective investment. Specifically:

> **Hypothesis 2***: Group-dispatched executive directors on a board will be associated with higher level of unrelated diversification strategy in an affiliated firm when the firm's performance is relatively high.*

4.5 The Salience of Group Affiliation Identity

An important contextual factor that may reinforce the salience of group affiliation identity of a group-dispatched executive director is the firm's dependence on the group. Sociology research suggests that economic actors are socially embedded and they form relations with others through social exchange (Granovetter, 1985). Group affiliated firms conduct various forms of internal transactions with its business group such as internal business trade (Lincoln and Gerlach, 2004). Extensive internal selling and purchasing of intermediate and final goods (Chang and Hong, 2000) and

dependence on group manufactures and trading firms as buyers and sellers of products and services create interdependence among the affiliated firms. This is especially the case in vertical business groups where suppliers, subcontractors, and distributors organized in a vertical division of labor. In this way, affiliated firms form close and cooperative relations typical of networks. This organization structure functions as a risk sharing system in which each affiliated firm supports the other by absorbing some of its costs and risk (Lincoln and Gerlach, 2004). These social relations indeed often breed trust and solidarity among the member firms within the group. These exchanges embed the affiliated firms and their management into the network of the group deeper. Under this situation, group-dispatched executive directors are more likely to cognitively associate themselves with the powerful group, demonstrating a more salient group affiliation identity. In this way, they improve their self-esteem and facilitate future business with the group. Over time, the management at the affiliated firm establishes stronger relationship with the group and other group member firms and therefore is more likely to commit to its group affiliation identity. The above arguments lead to the following hypothesis:

> **Hypothesis 3***: Group-dispatched executive directors on a board will be associated with lower level of unrelated diversification strategy in an affiliated firm when the affiliated firm is more dependent on the group.*

4.6 Methods

4.6.1 Sample

The sample frame for this study consisted of 943 group-affiliated listed firms from Chinese Shenzhen and Shanghai Stock Exchange from 2003 to 2005. Following previous studies, I excluded firms that showed negative equity due to accumulated losses, since such firms are technically bankrupt. Further, I excluded firms from the

sample because information was missing or because values for some variables appeared unrealistic.

I then coded the affiliation of directors of my sample firms. I obtained the profiles of board of directors for all the firms over this period from CSMAR database. As a result, I had 18,300 director-year observations. The profile information was in Chinese and it was a detailed introduction of a director's background, including her age, education, functional area, and all previous and current working experience. The public firms in their annual reports release this information each year. I also obtained the information of five largest shareholders from CSMAR. Three steps are involved to identify the affiliations of boards of directors. First, the database provides information of all positions each director assumes in a firm. Using this information, I was able to distinguish executive directors from outsider. Executive directors include those directors assume a managerial position in the firm at the same time; while non-executive directors refer to directors do not assume any managerial position in the focal firm. Second, a group of Chinese-speaking assistants carefully reviewed the profiles of each director and identified from her working experience whether she previously worked, or is currently working for, the largest group owners. Finally, after sorting out the directors (first in terms of executive directors vs. non-executive directors, second in terms of affiliation to the largest group owner), I combined the coding and identified the group-dispatched executive directors within a firm.

I combined the director information and other firm level data and had a final sample of 1944 observations for 790 group-affiliated listed firms over the period of 2003 to 2005.

4.6.2 Variables

Unrelated diversification. Unrelated diversification was measure using an entropy index approach (Lubatkin, Merchant and Srinivasan, 1993). The entropy measure of a firm's diversification is defined as "a weighted average of the shares of the segments" (Palepu, 1985, p. 252). The weight is assumed to be the logarithm of the inverse of the proportion of total business in each segment (Chatterjee & Blocher, 1992). The values of indices vary from zero to values greater than one. The greater the value of the index, the greater is the diversification level of a firm. The entropy measure is attractive because it takes into account "two elements of diversification: (i) the number of segments in which a firm operates, and (ii) the relative importance of each of the segments in the total sales" (Palepu, 1985, p. 252).

Using the information on revenues by product category for Chinese listed companies, I calculated the entropy indices of unrelated diversification for the year t in the following manner. Consider a firm operating in *N* industry segments (four-digit SIC industries). Those *N* industry segments aggregate into *M* industry groups (two-digit SIC industries). Let P_i be the share of the *i*th segment in the total sales of the firm. The unrelated diversification is defined as:

$$\text{Unrelated diversification}=\sum_M \sum_{i\epsilon j} P_i^j \ln\left(\frac{1}{P_i^j}\right)$$

I use the change of the unrelated diversification ($t\text{-}t_0$) in the empirical test.

Proportion of Group-dispatched Executive Director. This is measured as the number of group-dispatched directors who also assume executive positions in the affiliated firms, divided by the total number of directors. As previously introduced,

group affiliation of directors is identified from their working experience whether they previously worked, or are currently working for, the group owners.

Relative Organizational Tenure of Group-dispatched Executive Directors. This is measured as the number of years the director has been employed at their current affiliated company divided by firm age.

Relative Firm Performance. I employed ROA as the measure of firm performance, computed as the ratio of net income to total assets. Wernerfelf and Montgomery (1988) find that industry effects account for much for the variation in firm performance, it is more reasonable to compare the ROA of a firm with those in the same industry. Therefore, I adjusted the industry effect on firm performance by computing a relative measure using the firm's ROA divided by the median ROA in the same industry (at the two-digit SIC code level).

Firm Dependence on the Group. The dependence on the group was proxied by the internal trading activities conducted by the affiliated firm and its group. I measured internal trading as the total amount of both sales to and purchases from a group or other affiliated companies divided by the equity of the firm.

Other Controls. Several studies in the corporate diversification literature have suggested that the nature and concentration of the ownership of a firm relate to the occurrence of diversification (Ramaswamy, Li, and Petitt, 2004). Accordingly, I controlled for the shareholding by the group owner and the ownership type of the firm: state-owned firm is coded 1 and private-owned firm is 0. Firm size has been shown to be associated with diversification levels (Hoskisson et al., 1994) as an indirect measure of the resources available to the firm to pursue diversification and

acquisition strategies. Thus, I controlled for firm size, measured as the natural logarithm of total firm sales. Given the theoretical linkage between leverage and diversification as discussed in the literature (Kochhar, 1996;Kochhar and Hitt, 1998) and the strong relationship between China's business groups and banks, it was necessary to control for leverage to ensure it was indeed those corporate governance variables identified in this study, not the debt level, that were driving diversification moves (Ramaswamy, Li, and Petitt, 2004). Leverage was measured as the firm's debt to equity ratio. Finally, I included industry dummy variables at the two-digit SIC code level in all models, and I controlled for year by including dummy variables for the N-1 years in the sample to ensure that results were not dependent upon unspecified, time-specific factors.

4.6.3 Analysis

To test the hypotheses, I fitted random-effects models by using the GLS estimator (producing a matrix-weighted average of the between and within results) to analyze how characteristics of group-dispatched executive directors in aggregate level affect their identity salience in unrelated diversification strategy. The final data structure is a pooled time series, where firm-year represents the observation and the dependent variable is the change of the unrelated diversification in year t. The standard errors reported are clustered by firm. Unobserved heterogeneity, which may occur because each firm contributes multiple observations that are not independent from each other, is always a potential problem in pooled time series (Petersen and Koput, 1991). A common approach to addressing problems of unobserved heterogeneity is to insert additional firm-specific error terms that are either fixed over time for each firm (fixed-effects models), or vary randomly over time for each firm (random-effects

models) (Sayrs, 1989). I used random-effects models for the following reasons. First, fixed-effects models typically produce biased estimates of the fixed effects when the time period is relatively short (Chintagunta, Jain, and Vilcassim, 1991; Heckman, 1981). While the time frame of this study is 3 years, some firms contribute less than 3 observations because they were merged with other firms or because of missing data. Second, since most of the firms are either highly diversified or not throughout the whole period, the models cannot be estimated using the fixed-effect approach because this approach requires variance in both dependent and independent variables to assure that these variables are distinguishable from the fixed effects (Judge et al., 1985).

4.7 Results

Table 5.1 provides the means, standard deviations, minimums, maximums, and bivariate correlations for all data used to analyze predictions of characteristics of group-dispatched executive directors' role in intervening diversification strategy. The mean of group-dispatched executive directors is 0.059: 5.9% of the board of directors of a group-affiliated firm are affiliated with the controlling group owners. The mean of relative organizational tenure suggests that the average organizational tenure of group-dispatched executive directors in a group-affiliated firm is as long as 9.3% of the firm's age. The mean of business ties with group indicates that the size of internal trading within business groups is around 4.6% of the firm's equity size. Finally, business groups on average hold 45.1% of shareholdings of their group-affiliated firms and 89.4% of the group-affiliated firms in our samples are controlled by state.

The correlations in Panel B show that there is a negative correlation between change of unrelated diversification and the percentage of group-dispatched directors,

but the correlation is not significant. There is a positive and significant correlation between change of unrelated diversification and previous year's firm performance (0.037, p-value<0.1), while the correlations between unrelated diversification and firm leverage is negative and significant (-0.063, p-value<0.01).

Table 5.2 presents the results of the Heckman two-stage corrected regression analyses based on the sample of 792 group-affiliated companies. Panel A of Table 5.2 displays the first stage regression where I regressed the unrelated diversification indicator on a set of explanatory variables. Panel B shows the results of the second stage regression. I included the inverse mills ratios computed from the first stage regression as an additional explanatory variable in all models. Model 1 is the base model includes only the percentage of group-dispatched executive directors. Each of Model 2-4 includes an intervening factor and the interaction term of this factor with the percentage of group-dispatched executive directors. Model 5 is the full model including all intervening factors and their interaction terms at the same time.

The predicted variable in Panel B is the change of unrelated diversification strategies in the sample firms. The patterns of results support the intervention theory: the intervention effect of directors on diversification strategy is contingent on different characteristics of directors. Model 1 shows the main effect of group-dispatched executive directors on change of unrelated diversification is significantly negative. This result suggests that higher presence of group-dispatched directors is likely to be associated with a controlling role, reducing unrelated diversification at the group-affiliated firm level. Hypothesis 1 predicts that the relative organizational tenure will moderate the group-affiliation identity of group-dispatched directors and

strengthen their executive identity, leading to a higher level of unrelated diversification. Model 2 testing this hypothesis provides support to it, showing a positive and significant interaction effect (β=0.086, *p-value*<0.01). Similarly, Model 3 confirms my prediction in Hypothesis 2 that relative better firm performance will also strengthen the executive identity and mitigate the group-affiliation identity of the group-dispatched executive directors, resulting further unrelated diversification moves. The coefficient on relative firm performance is 0.006 (*p-value*<0.01). Model 4 tests the intervening effect of the business ties with groups and shows a significantly negative intervening effect of business ties with group on the effect of group-dispatched directors on unrelated diversification (β=-0.173, *p-value*<0.05). The results support to my prediction that closer ties with business groups, measured by trading activities, will strengthen the group-affiliation identity of a firm, and of the firm's executive directors. Model 5 includes all three intervening factors. Among the three factors, the negative effect of business ties with group is the largest (with an impact size of 0.333) and most significant (*p-value*<0.05).

All control variables significantly predicted the change of unrelated diversification strategies in group-affiliated firms. First, the group's shareholding (the largest shareholding) shows a negative effect on unrelated diversification. Secondly, state-controlled group-affiliated firms show a negative tendency towards unrelated diversification. Finally, firm size and leverage level attract significant negative coefficients; while firm age takes positive significant coefficients.

4.8 Summary

This chapter focuses on the internal governance mechanisms through dispatched directors in business groups. The empirical model tested the effects of contextual and reflexive factors on the salience of conflicting identities of group-dispatched executive directors in pursuing unrelated diversification strategies. The results show that, in general, executive directors are dispatched from the group function a control role in group-affiliated firms. Higher proportion of group-dispatched executive directors presented in the board of an affiliated firm, less unrelated diversification it will pursue. This control role, however, is mitigated by contextual and reflexive factors influencing the salience of multiple identities inherent in group-dispatched executive directors. Longer organizational tenure and better economic performance of the affiliated firm will raise the salience of executive identity with the affiliated firm in these directors. Meanwhile, the results also indicate that business groups can strengthen the group affiliation identity of these directors by engaging in more business activities with the focal firm, embedding the directors into the group network.

Table 4.1Descriptive and Correlations Statistics

Panel A. Descriptive Statistics

Variables	Mean	Std. Dev.	Min	Max
Change of unrelated diversification	-0.007	0.261	-1.397	1.595
Group-dispatched executive directors	0.059	0.119	0.000	0.833
Relative organizational tenure of group-dispatched executive directors (Relative Tenure)	0.093	0.182	0.000	1.000
Relative firm performance	0.437	8.980	-22.288	19.024
Business ties with group	0.046	0.160	0.000	1.741
Group shareholding	0.451	0.167	0.060	0.850
Firm size (ln_sales)	17.063	4.641	3.340	24.982
Firm leverage (log)	0.006	0.674	-3.317	5.453
Firm age (log)	2.457	0.488	0.693	5.004
State control	0.894	0.309	0.000	1.000

Panel B. Correlations Statistics of Variables

	Variables	1	2	3	4	5	6	7	8	9
1	Change of unrelated diversification	1								
2	Group-dispatched executive directors	-0.023	1							
3	Relative organizational tenure of group-dispatched executive directors (Relative Tenure)	0.002	0.489*	1						
4	Relative firm performance	0.037*	0.000	-0.011	1					
5	Business ties with group	0.005	-0.075*	-0.097*	-0.071*	1				
6	Group shareholding	0.005	0.057*	0.119*	0.097*	0.125*	1			
7	State control	-0.005	0.017	0.041*	0.030	0.025	0.158*	1		
8	Firm size	0.022	0.097*	0.169*	0.076*	-0.383*	0.163*	0.068*	1	
9	Firm leverage	-0.063*	-0.019	-0.024	-0.060*	-0.019	-0.159*	-0.015	-0.105*	1
10	Firm age	0.019	-0.025	-0.203*	0.003	0.074*	-0.202*	-0.092*	-0.274*	0.012

Note: * significant at 1% level.

Table 4.2 Multiple Identities of Group-dispatched Executive Directors and Unrelated Diversification: Random Effect GLS Models

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Group-dispatched executive directors	-0.033*** (-3.40)	-0.365*** (-3.20)	-0.047*** (-5.21)	-0.031*** (-3.84)	-0.354*** (-2.60)
Relative organizational tenure		0.009 (0.86)			0.016 (1.41)
Relative firm performance			0.001*** (5.34)		0.001*** (5.23)
Dependence on group				0.026*** (7.15)	0.015 (1.58)
Group-dispatched executive directors *Organizaitonal Tenure		**0.086*** (2.68)**			**0.081** (2.33)**
Group-dispatched executive directors *Relative firm performance			**0.006*** (4.13)**		**0.005** (2.32)**
Group-dispatched executive directors *Dependence on group				**-0.173** (-2.19)**	**-0.333*** (-5.47)**
Group shareholding	0.003 (0.62)	0.004 (1.19)	0.002 (0.35)	-0.003 (0.62)	-0.016*** (-2.56)
Firm size	-0.001* (-1.69)	-0.001* (-2.92)	-0.002*** (-2.73)	-0.001 (-0.57)	-0.001 (-0.63)
Firm leverage	-0.012*** (-7.60)	-0.011*** (-6.93)	-0.008*** (-3.48)	-0.007*** (-4.75)	-0.002 (-1.01)
Firm age	0.004*** (3.66)	0.007*** (3.48)	0.001 (1.23)	0.004*** (3.63)	0.007*** (5.11)
State control	-0.006 (-1.59)	-0.006*** (-4.77)	-0.006** (-1.97)	-0.014*** (-6.89)	-0.005* (-1.71)
Number of firms	788	788	776	774	720
Observations	1985	1985	1928	1911	1657

CHAPTER 5 DISCUSSION AND CONCLUSIONS

5.1 Implications of Results for Theory

5.1.1 Diversification and Internal Resource Transfer in Business Groups

In the first study of diversification and internal resource transfer in business groups, I find evidence to support the power-seeking hypothesis that top management in business group-affiliated firms adopts unrelated diversification as a protective investment in order to protect self-generated resources and compete for more group-level resources. Unrelated diversification can increase a group-affiliated firm's bargaining power in group-level resource allocation decision, transfer liquid assets into physical assets to avoid resource transfer, and signal to the group the need of resources. In this way, unrelated diversification may create value to a group-affiliated firm. In particular, if the expected expropriation costs are large enough, seemingly negative net present value unrelated diversification invests are actually in the best interests of the group-affiliated firms. In other words, the presence of a significant threat of expropriation makes diversification a value-creating proposition (Beneish, et al., 2008; Stulz, 2005).

My conceptual and empirical focus on diversification strategies as a distinct form of protective investments for managers in group-affiliated firms yields several insights to the business group literature and diversification literature. First, previous business group literature suggests that group owners decide to prop or tunnel a group-affiliated firm based on factors including ownership structure, economic times, or the performance of the affiliated firms. The role of managers in group-affiliated firms is minimized in this decision. However, in this study, using an enriched power-seeking

perspective of internal market in the business group context, I argue that managers in group-affiliated firms adopt strategic choices to influence the internal resource allocation. This is driven by the facts of divergent interests, information asymmetry and their desire for more resource slack. This study therefore suggests that strategy researchers should pay attention to the internal power struggle problems internal to the business group organization. The results indicate that on one hand, the power-seeking problem may lead to resource misallocation in business groups. On the other hand, the results also indicate that the power-seeking problem may mitigate, to some extent, the tunneling problem stemming from controlling group owners because the managers in affiliated firms have incentives and ability to protect their firms' interests.

Second, the evidence that managers in group-affiliated firms diversify to influence internal resource allocation contributes to the literature that found it difficult to explain diversification strategies at the group-affiliated firm level. Previous diversification literature, both efficiency perspective and agency perspective, emphasizes the impact of slack resources on diversification. Basically, they argue that slack resources drove diversification, for either efficiency purposes or agency purposes. Applying this argument to explain the diversification strategy in group-affiliated firms may lead to the conjecture that access to more resources at the group-level induces group-affiliated firms to diversify. In this study, my findings provide a more refined explanation to the relationship of the slack resources and diversification strategy in group-affiliated firms. The results show that managers in group-affiliated firms use private information to adopt diversification strategies with an aim to compete for more slack resources accumulated at the group level and to protect their

affiliated firms' growth-induced slack. The results indicate that diversification strategy is more likely to be adopted by affiliated firms with relative more slack resources, which is consistent with the prediction of previous diversification studies. The underlying logic, however, could be that such strategies allow the firms to protect their slack resources from being shared.

Third, this study shows that the market availability and redeployability of a resource determine its subsequent influence on the outcome of diversification strategies. The characteristics of "market availability" closely parallel "rarity" proposed by another study (Voss et al. 2008) examining the rarity and absorption of a slack resource and the effect on exploration and exploitation actions. I find that acquiring more market unavailable redeployable resources (e.g. intangible assets) from the group will benefit the profitability of diversification moves, while acquiring more market available redeployable resources (e.g. financial resources) from the group will lead to poorer performance of diversification strategy at the affiliated firm level. The results of this study suggest that, on one hand, though holding a modicum of financial slack resources is critical for the success of diversification strategies, too much financial slack may exert a negative influence on the performance outcome of this strategy. This finding is consistent with the traditional agency theory arguments for diversification. On the other hand, for market unavailable redeployable resources (e.g. intangible assets), the efficiency arguments seem to have more prediction power. In this way, this study serves as an effort to reconcile the divergent arguments of efficiency perspective and agency perspective regarding slack resources and diversification.

Fourth, this study also extends the power-seeking perspective (Scharfstein & Stein, 2000; Rajan, Servaes, & Zingales, 2000). I enrich the framework with elements from influence cost models and the behavior theory of firm and highlight the information asymmetry problem in resource allocation decision in diversified organizations. I argue that it is difficult for group headquarters to differentiate value-increasing investments from investments driven by self-preserving purpose in group-affiliated firms because of information asymmetry problem. Though top management intends to transfer resources from the more efficient divisions to the less efficient divisions (Rajan et al, 2000), they may not have sufficient antecedent information to do so. Therefore, managers in group-affiliated firms can actually mitigate this resource misallocation problem described in framework through "defensive investments". As a result, the inefficiency of internal resource allocation within multidivisional organizations lies in the fact that group resources are transferred to less efficient projects, such as unrelated diversification, rather than to less efficient divisions. In addition, this study uses direct internal resource transfer data to investigate the internal market. Previous studies investigating internal capital market often rely on segment data in multi-division firms in US. Because these companies do not reveal their internal fund/resource transfer among segments, these studies have to resort to indirect measures of funds transfer or cross-subsidy, for example, the difference between a division's capital expenditures and a single-segment firm's capital expenditure (e.g. Lang and Stulz, 1994; Scharfstein, 1998; Rajan et al., 2000). This study, using detailed related party transaction data in business groups, investigates the internal capital allocation directly.

5.1.2 The Contingent Role of Group-dispatched Executive Directors

Overall, the findings of the second study on the contingent role of group-dispatched executive directors offer new insights into how board of directors can influence corporate strategy by incorporating the identity perspective. I find that board of directors, in particular, executive directors dispatched directors, face the potential for conflict in diversification strategy decision as they attempt to reconcile the expectations, values, and characteristics of their multiple identities: group-affiliation identity and firm executive identity. The identity perspective reveals much about the process of internalizing the expectations and values of an identity and about how this process could result in different behaviors. This perspective provides a new and important lens for governance research (Hillman, Nicholson, & Shropshire, 2008).

The finding that higher presence of group-dispatched executive directors is negatively associated with unrelated diversification indicates that these directors serve mainly a controlling role in group-affiliated firms. They constrain the protective investment decisions through unrelated diversification. Their controlling role, however, can be mitigated by two contextual and reflective factors: the organizational tenure of the directors serving on the board of directors in the group-affiliated firms and the performance of the group-affiliated firms. More specifically, the longer the group-dispatched executive directors serve on the board of an affiliated firm, the more likely they identify themselves as first executives of the firm and then directors dispatched by the group. Therefore, in protective diversification decisions where both their executive identity and group-affiliation identity are relevant, they will tend to follow the expectation associated with executive identity, resulting in higher level of such strategy. Similarly, since the salience of an identity is "reflexive" (Burke &

Reitzes, 1981), better performance of one role identity can result in more salience of this identity. I find that when a group-affiliated firm under management is performing relatively well in its industry, the executive identity can be more salient and mitigate the controlling role of the group-dispatched directors in diversification strategy.

Moreover, the controlling role of group-dispatched executive directors can be strengthened by the business ties between an affiliated firm and its group. Such ties embed the executive directors into a deeper social exchange network within the business groups and form stronger commitment to the group. In addition, higher such ties also indicate a economic prominence of the group to the affiliated firm because of higher level of economic dependence on supply chains or sales channels. Therefore, stronger business ties with group can strengthen the identity of group affiliation in group-dispatched executive directors.

This study, adopting an identity perspective to examine behaviors of board of directors, has significant implications to (1) the board of directors literature, (2) and the business group governance literature. First, this study contributes to board of directors literature through a better understanding of how group-dispatched executive directors affect corporate strategy through boardroom activities. Much of the existing research on boards assumes that demographic characteristics are good predictors of boardroom behavior. This research, however, did not address how group-dispatched executive directors cope with the potential conflicting role-identities emphasized in the role conflict literature (e.g. Gross, Mason and McEachern, 1958; Hall, 1972; Adler and Adler, 1981). Without understanding the strength of a director's identification with different roles, it will be difficult to predict the behaviors of a

director. Regarding group-dispatched executive directors, when the two identities of group affiliation and firm executive are conflicting, those with strong identification with firm executive may not engage in controlling activities as those with strong identification with group affiliation. In addition, agency theorists often focus on the role of incentives such as equity compensation for directors to engage in board functions, yet several scholars note that this compensation may not be enough to affect boardroom behavior (Daily et al. 1999, Daily and Dalton 2002). The model proposed in this study also emphasizes the role of incentives, but instead of focusing on extrinsic rewards as motivation (e.g., money), to engage in board functions, I examine the intrinsic motivation to do so that comes from a strong identification with relevant board identities.

Similarly, according to resource dependence theory, group-dispatched executive directors will use their human and social capital to benefit the firm. Yet my arguments suggest this is only true if the director strongly identifies with the firm. If he has only weak identification with the firm, he is unlikely to use his human and social capital to benefit the firm. Alternatively, if a director's identification with the group is strong, he may be the group's vigilant monitor and facilitate resources transfer from the firm. I argue that directors' salience structure of multiple contextually relevant identities will determine the behaviors of the directors.

The second contribution of this study is to the business group governance literature. My findings suggest that to enable individuals to view themselves as being in the same boat and regard group-level goals more positively, business groups should create interdependencies and communication channels among group-affiliated

firms, rotating members through various affiliated firms and tying rewards to group goals. These findings are consistent with the tactics suggested by the organizational behavior research (Ashforth and Johnson, 2001).

5.2 Limitation of Study

This dissertation is subject to several limitations. The first limitation concerns the sample used for analysis. This study used the listed companies in China as its empirical sample and identified the firms that are affiliated with business groups or independent according to their ownership structure reported in annual reports. In the context of China, most business groups have only one listed affiliated company. The complete financial and governance data of all group-affiliated firms within each business group is not available. As a result, in Chapter 3, I tested my power-seeking hypothesis of diversification strategy in group-affiliated firms through comparing the diversification level of individual group-affiliated firms in various business groups without controlling the group-level characteristics. For example, the average diversification level in group-affiliated firms in a business group is likely to be higher than that in group-affiliated firms in another business group. Similarly, because of this data limitation, I was not able to control for the relative efficiency of different affiliated firms in a group. Prior internal market studies emphasize that the relative efficiency of different divisions/ affiliated firms determine the resource allocation decision in a diversified organization. In addition, due to the data limitation in governance data of group-affiliated firms in a business group, I employed a relatively indirect measure of commitment to business group in Chapter 4. I used the trading activities with business group of the focal affiliated firm but does not directly assess

the commitment at the board of directors level. With data of detailed director interlocks across group-affiliated firms, a more direct measure of the group-dispatched directors' commitment to group can be used.

The second potential limitation is that, in Chapter 3, I measured slack resources relatively indirectly using the level of net inflow of resources into a group-affiliated firm. Though resources accumulated at the group level and transferred into a group-affiliated firm is a source of "slack" (Cyert & March, 1963), I could not ascertain whether resources transferred from a group-affiliated firm is indeed "excess resources". Since I lacked measures of performance relative to aspirational target level of performance in an affiliated firm, I was unable to specifically account for how deviations from these targets may influence strategic choices (March & Shapira, 1992). Similar problem was also faced by prior studies in studying slack resources (e.g. Voss et al., 2008).

5.3 Conclusions

In conclusion, this dissertation contributes to understanding diversification strategies in business group-affiliated firms, the links between slack resources and outcome of diversification strategies. My findings point to the importance of considering the information asymmetry and interest divergence problems in diversified organizations that lead to the internal power seeking behaviors of management at affiliated firm level. The overall message is that managers in group-affiliated firms adopt unrelated diversification strategy in order to protect or compete for more redeployable resources. Acquiring market unavailable resources has conferred competitive advantage to group-affiliated firms and facilitates the

diversification moves. In contrast, more market available resources may strengthen the agency issues in group-affiliated firms and lead to imprudent investments with lower subsequent returns.

This dissertation, in Chapter 4, further contributes to understanding how governance mechanisms in business groups influence the diversification strategies in group-affiliated firms. The findings suggest the importance of group governance mechanisms in mitigating the problems. This study applied a new theoretical lens to disentangle the role of board of directors in influencing firm strategies when facing multiple potential conflict identities. The identity and social identity theories provide new insights to understand the internal mechanisms that explain the behavior of board of directors. The findings are consistent with the recent research suggesting that a firm's board of directors affect the firm's strategies. I show that a firm's diversification strategy is associated with the composition of the board of directors, and the contextual and reflexive factors that affect the behavior of a typical type of board of directors.

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